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Juvenile Finfish and Blue Crab Stock Assessment Program Bottom Trawl Survey Annual Data Summary Report Series Volume 1986

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JUVENILE FINFISH AND BLUE CRAB STOCK ASSESSMENT PROGRAM

BOTTOM TRAWL SURVEY

ANNUAL DATA SUMMARY REPORT SERIES

BALTIMORE

VOLUME 1986

by

Michael E. Land
Patrick J. Geer
Christopher F. Bonzek
Herb M. Austin

Special Scientific Report No. 124 Volume 1986

College of William and Mary

School of Marine Science

Virginia Institute of Marine Science

Gloucester Point, VA 23062

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Dennis L. Taylor, Dean and Director

March 1994

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VOLUME 1986

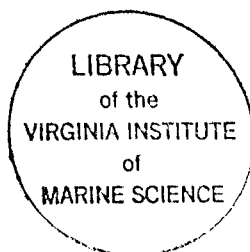
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March 1994



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The authors would like to thank the many individuals who have participated in the field collections, often under difficult and arduous circumstances. This would include scientists, technical support staff, as well as graduate research assistants all of whom are too numerous to mention.

We would like to single out Willard Van Engel and Frank J. Wojcik for their years of dedication to these databases, Mark E. Chittenden who was principal investigator of this program in 1986, and Robert E. Harris, Jr. of the VIMS Fisheries Data Management and Analysis Staff.

This is a first in an attempt to summarize portions of the historical Trawl Survey database. Future efforts will involve error checking and analysis of this 39 year database, for the purposes of providing a continuous reference of the Chesapeake system stocks.

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INTRODUCTION

This report summarizes data collected by the Virginia Institute of Marine Science (VIMS) monthly trawl survey cruises for January-December 1986. The trawl survey is a long term, broad scope monitoring program. Its present primary goal is to produce annual indices of juvenile (young-of-year) abundance of commercially, recreationally and ecologically important marine and estuarine finfish and crustaceans. The objective is to provide indices of sufficient accuracy and precision for both immediate resource management needs and long-term understanding of environmental influences of fishery resources. A second important product of this effort is the documentation and monitoring of habitat utilization by juveniles and smaller adults of these species. The program also provides a sound framework for the procurement of biological samples for life history studies and other concurrent scientific investigations relevant to fishery resource management.

In 1986 the program consisted of fixed station mid-channel transects in each of the three major Virginia tributaries: the York, James, and Rappahannock rivers (Wojcik and Van Engel, 1988a, 1988b, 1989). The river survey is based upon a sampling program initiated in 1955 (a random stratified design was used from 1973-79). Changes in gear type and sampling methods used over the history of the river survey are summarized in Figure 1.

The following tables and figures include data for all finfish species and blue crabs caught during 1986. Data are also presented showing station locations and showing the atmospheric and hydrographic data collected at each station.

METHODS

All sampling was performed aboard the research vessel **CAPTAIN JOHN SMITH**. The sampling gear was a 30' semi-balloon otter trawl (Marinovich Gulf Shrimp Trawl) with 1½" stretch mesh body, a ¼" mesh cod end liner, attached tickler chain, 60' bridle length, and a 3:1 warp, using wooden otter doors (54" x 25"). The tow duration was five minutes bottom time at a speed of approximately 2½ knots. A sample day was defined as the period between sunrise and sunset.

At each station, station identification, beginning latitude and longitude, depth, tide stage, secchi depth, tow direction (upstream vs. downstream and relative to current), air temperature, wind direction, wind speed, weather conditions, and sea state were recorded. Surface and bottom hydrographic data (temperature, salinity, and dissolved oxygen), were recorded immediately following the tow at a depth consistent with that of the trawling depth. Occasionally, hydrographic samples were taken and processed back at the lab using the Winkler titration method for dissolved oxygen and the RS-7 salinometer for salinity, to ensure accuracy. Onboard processing of catches involved separating them according to species, placing individual species into collection bags, and bringing most specimens back to the laboratory to be preserved in a 10% formalin solution. All fish were measured at a later date using measuring boards with all information transferred to the database. For fish species, all lengths (to the nearest millimeter) were taken as fork lengths unless no fork was present for a given species, in which case total length was measured. For blue crabs, point-to-point carapace width was measured (called long carapace width). Subsampling was rarely performed and only when large homogeneous catches of a species were made. Station and environmental data were recorded first on paper and later transferred to the computer database. A sample data sheet appears in Appendix A.

River Survey

The fixed mid-channel river stations were defined at approximate 5-mile intervals from the river mouths to approximately the freshwater interface. Generally one tow was made at each station each month. During the months of May to November, a second tow, opposite in direction, was made at selected *blue crab index stations*. All data were recorded from the second tow.

RESULTS

Catch data in this report represent total numbers caught. No weights were taken for fish or crabs in the field or lab.

Figures 2-13 show the locations of the stations occupied each month in 1986. Table 1 shows the codes used for the various hydrographic and atmospheric parameters. The corresponding station information is located in Tables 2-13 and the hydrographic and atmospheric data for the river survey is found in Tables 14-25.

Figures 14-44 geographically illustrate catch by month and station for the predominant species (the 18 most historically abundant finfish species, three categories of blue crabs, plus other species of interest, arranged alphabetically, TOTAL = 31 species) over the entire sampling area. These figures provide a helpful synopsis for showing temporal and geographic distribution of these species.

Figures 45-75 provide monthly length-frequency summaries for the above selected species. These graphs and accompanying statistics are useful in separating young of the year (YOY) from older fish since the age of each fish was not taken. Calendar year is not the optimal way to present such data for species that spawn late in the year, however the figures are presented this way for convenience and consistency.

Catch, catch per unit effort (CPUE), and length statistics for data from the river survey for the entire year are in Table 26. Similar data for the river survey, by river, pooled over all months is presented in Tables 27-29. Tables 30-76 contain analogous data summaries by month and river for the river trawl survey.

DISCUSSION

The purpose of this report is to present a quick visual summary of the data collected during the 1986 VIMS Trawl Survey. A more analytical review of key target species for 1979-1992 is presented in Geer et. al., (1993).

Since this report represents a summary eight years in retrospect, it would be difficult to draw conclusions from these data. The main purpose of this report is to summarize previous sampling years in a format similar to that now being practiced, Bonzek et al., (1993). As a result, there are several variables that appear in the tables as missing, when in reality they were not collected during routine sampling. These data were scrutinized to their correctness to the best possible means. However, personnel changes have made it difficult to confirm certain data, requiring some speculation on the authors' part.

NOTICE

No portion of this report may be used without consent or citation of the Virginia Institute of Marine Science, Trawl Survey Project. For further information contact Patrick Geer, Chris Bonzek, or Robert Harris at the Virginia Institute of Marine Science, Gloucester Point, Virginia, 23062, Telephone (804) 642-7000.

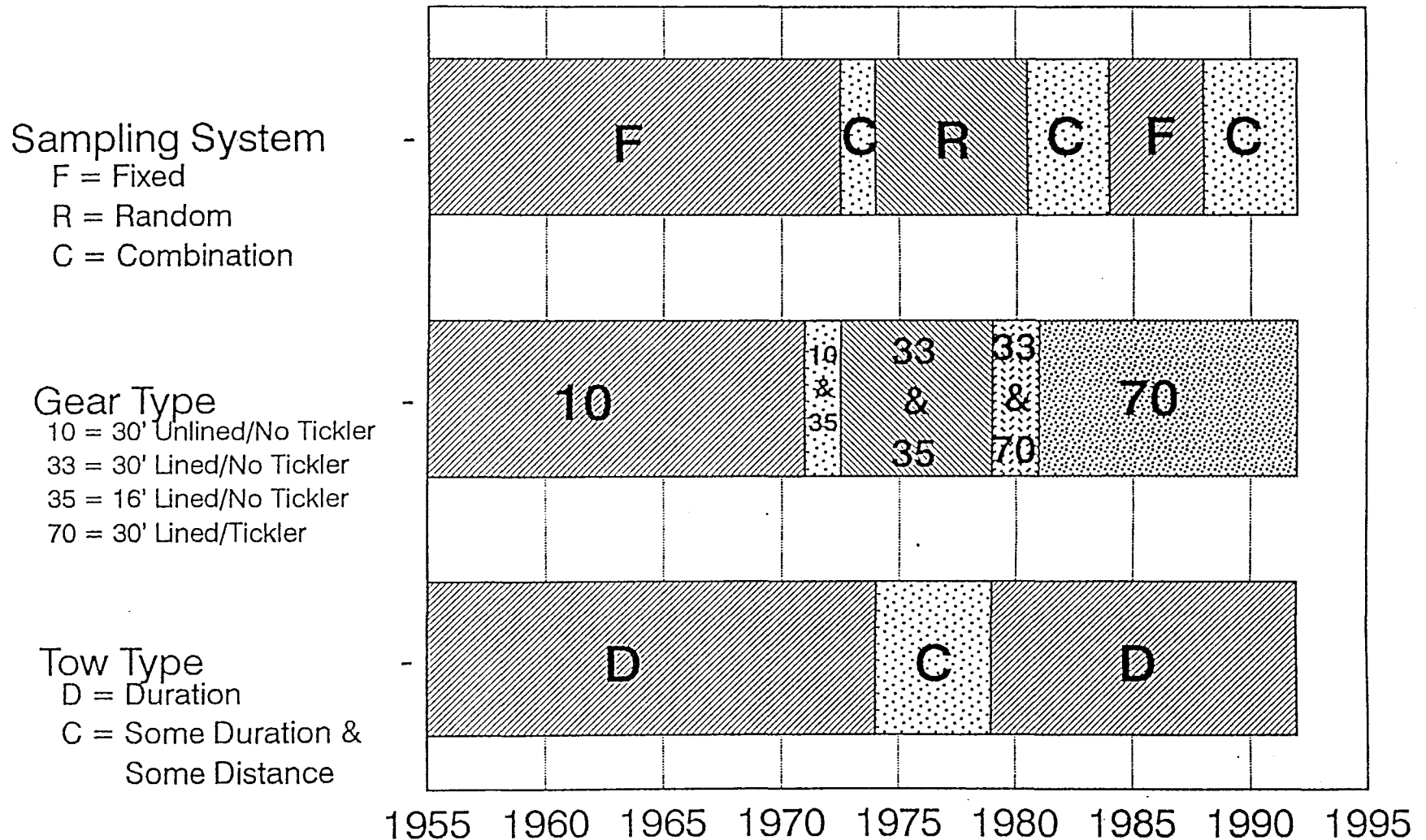
Figure 1. Sampling system design, and gear changes for the VIMS trawl survey, 1955-1992.

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VIMS Juvenile Fish Trawl Survey

Sampling Changes 1955 - 1992

7



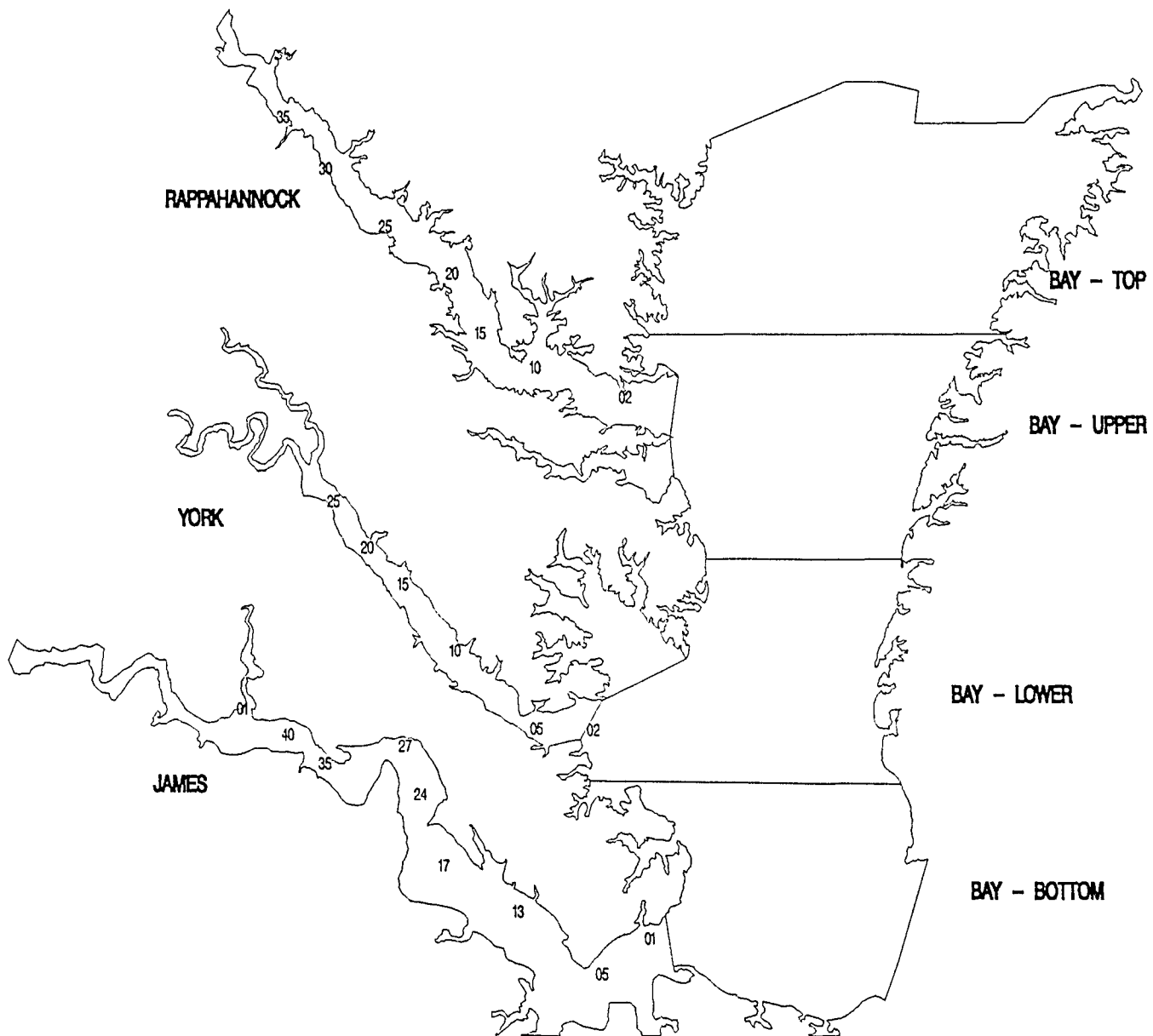
Figures 2-13. Stations sampled in 1986 by month.

Notes:

- A. Due to LORAN distortion at upriver stations and to computer software control of the placement of figures on these maps, the locations shown may vary slightly from the actual stations occupied. For exact latitude and longitude refer to Tables 2-13.

Figure 2.

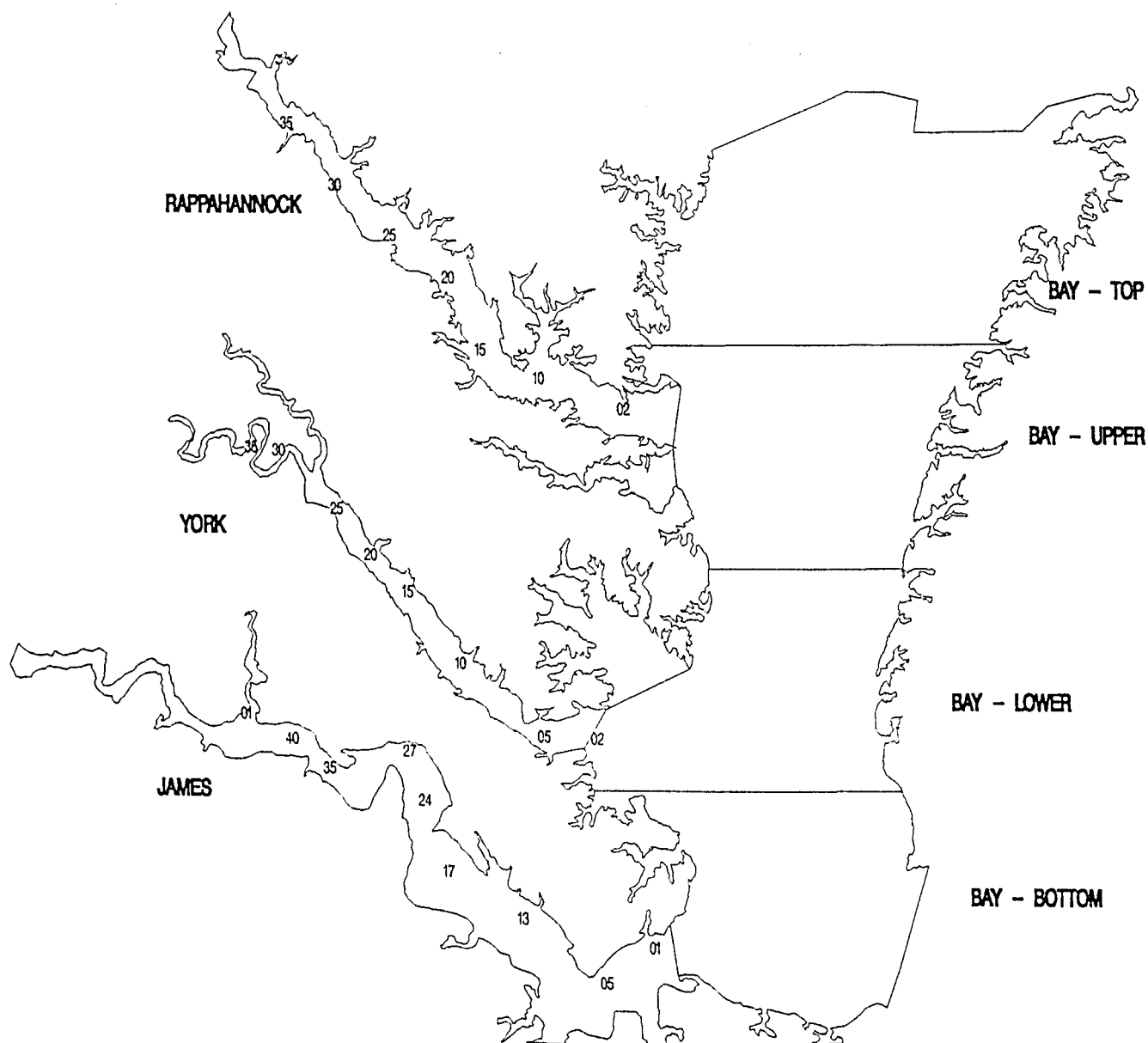
JANUARY 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

Figure 3.

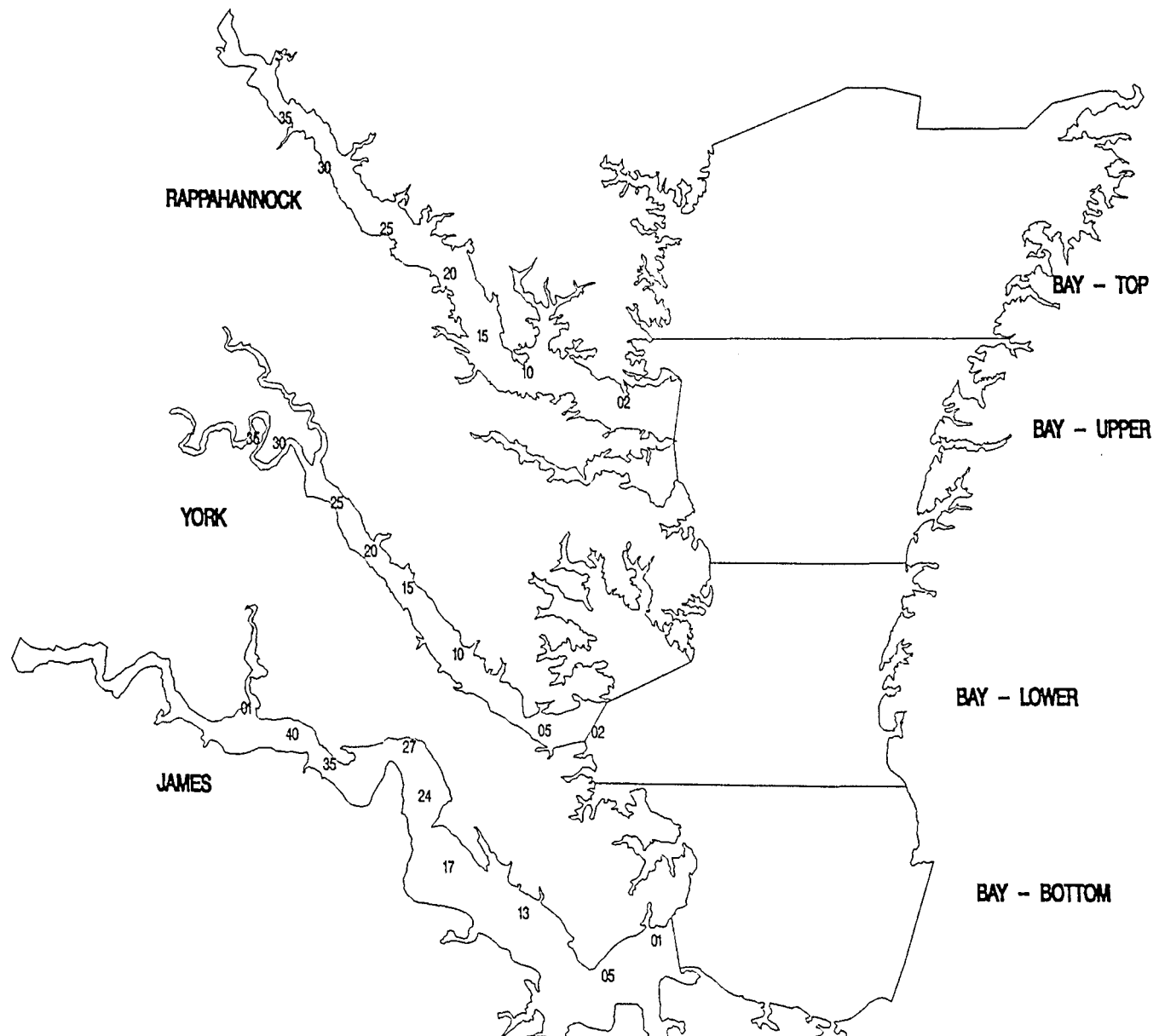
FEBRUARY 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

Figure 4.

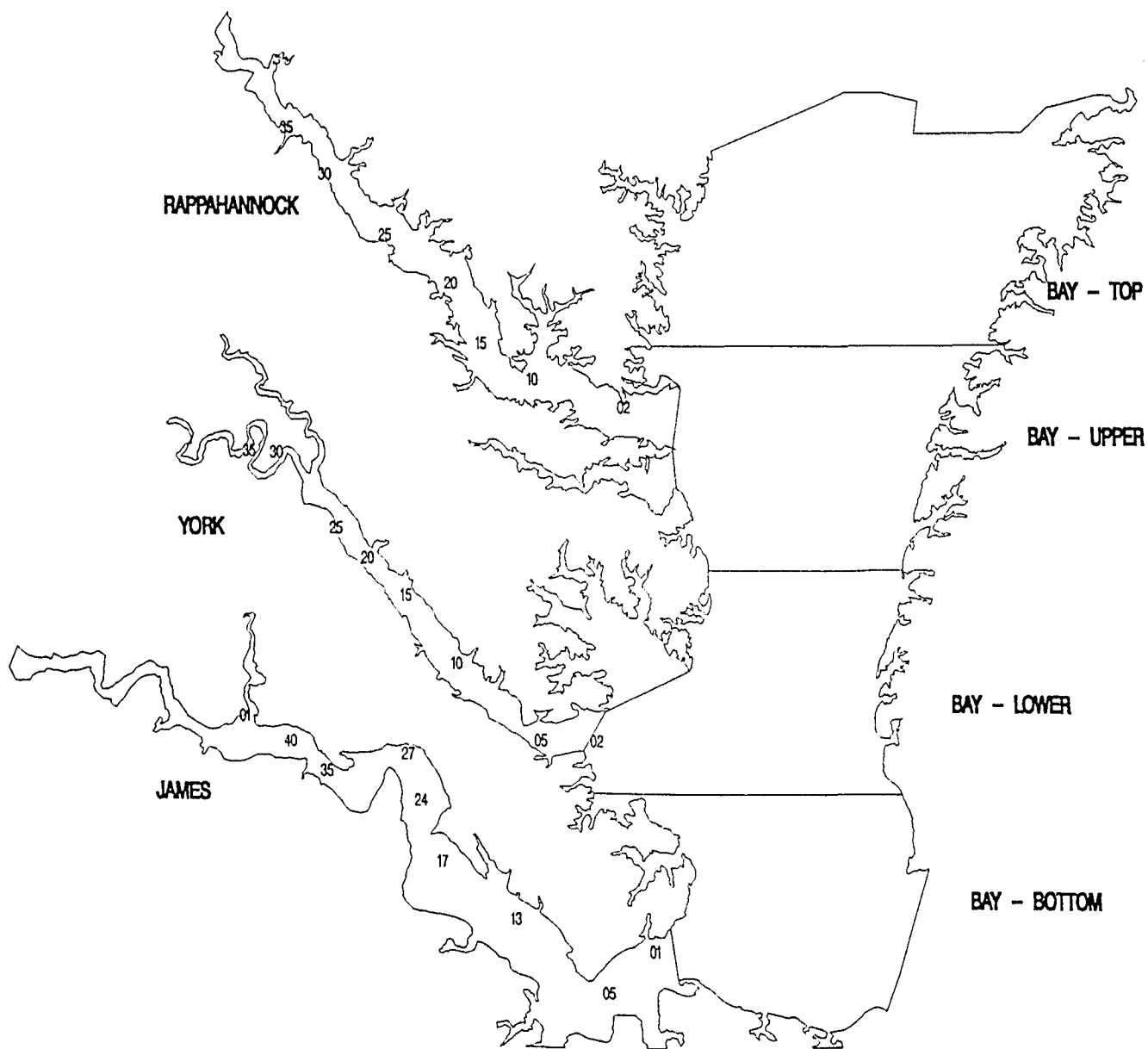
MARCH 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

Figure 5.

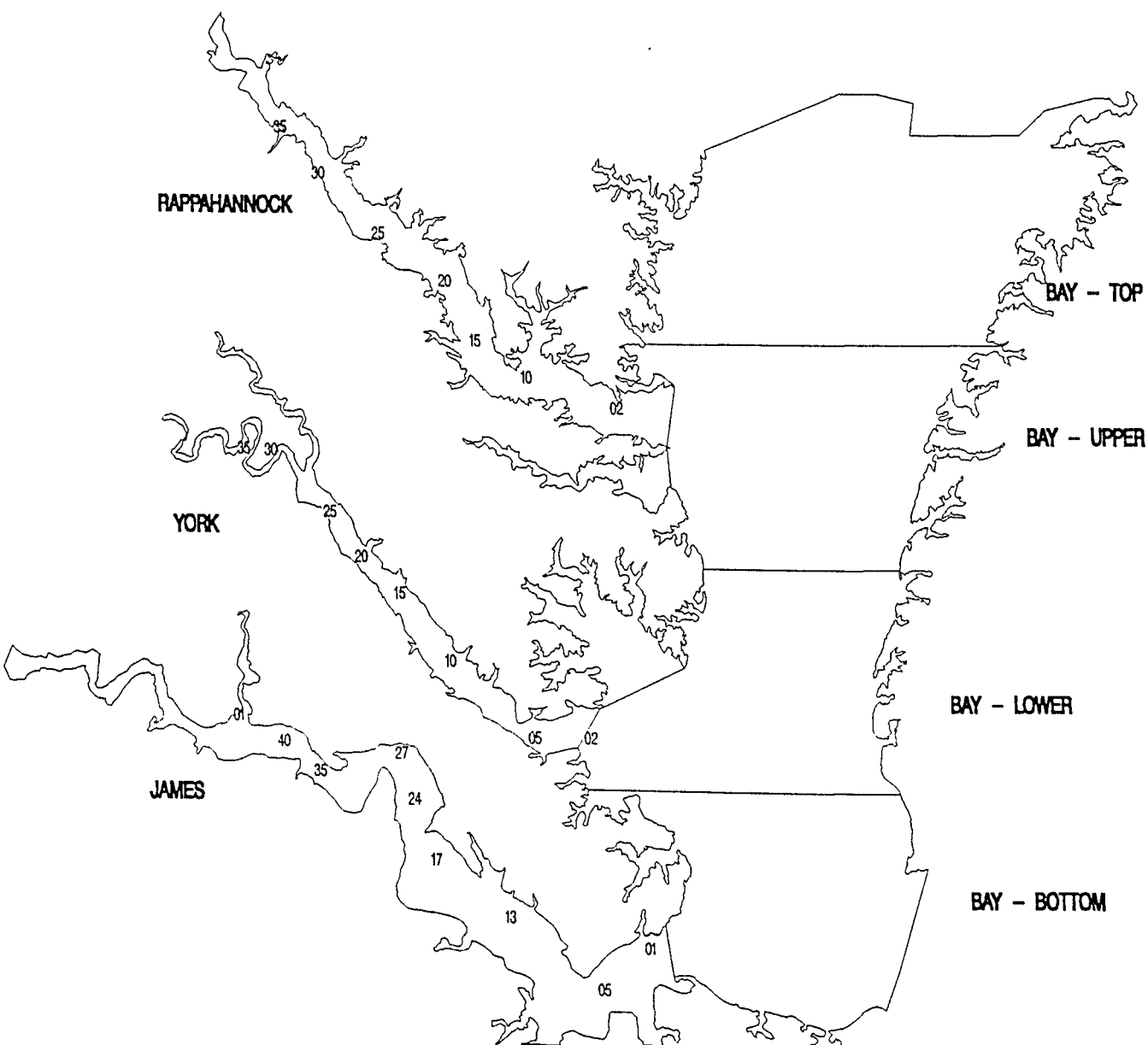
APRIL 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

Figure 6.

MAY 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

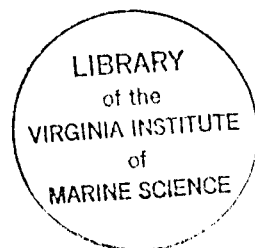
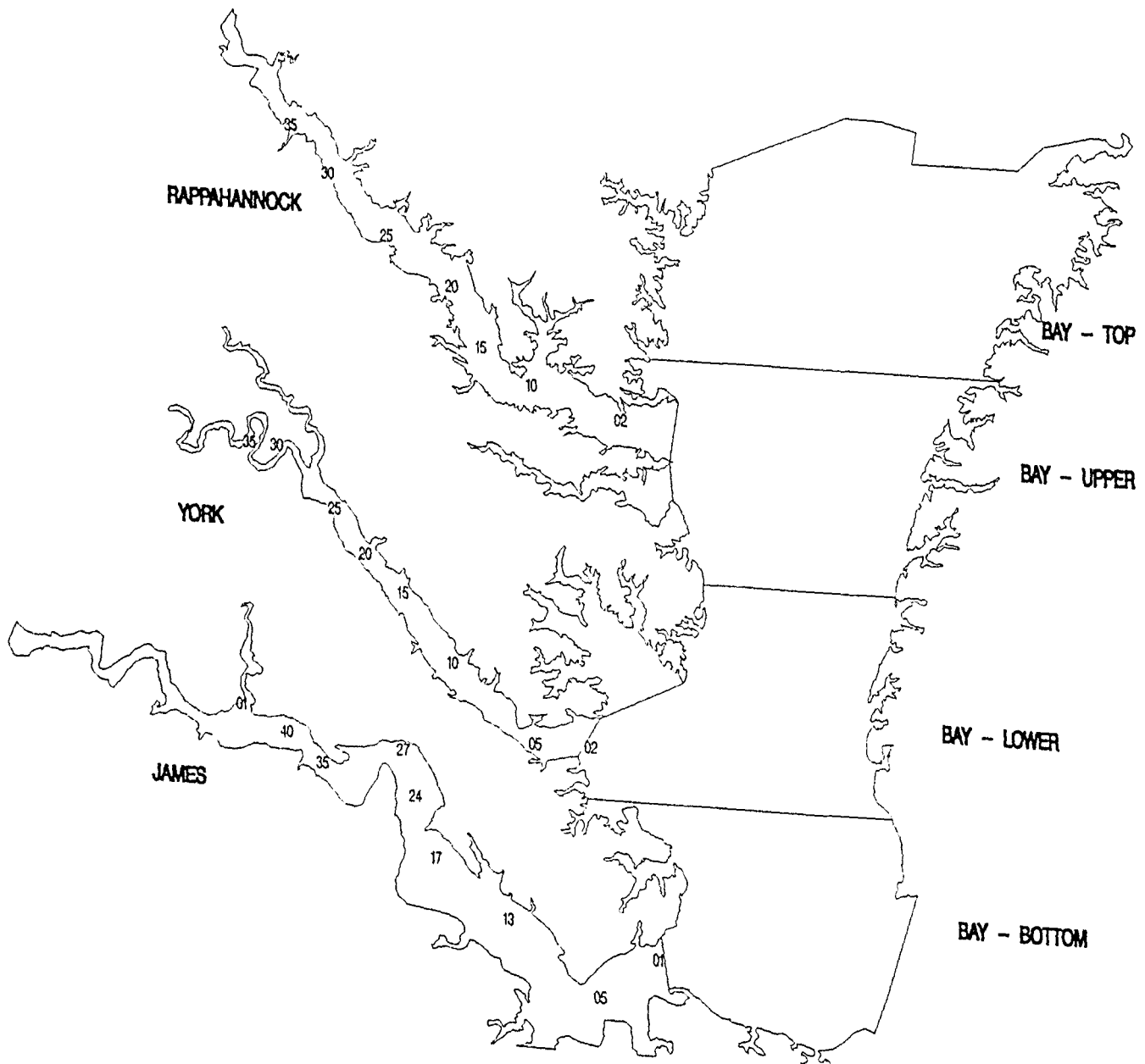


Figure 7.

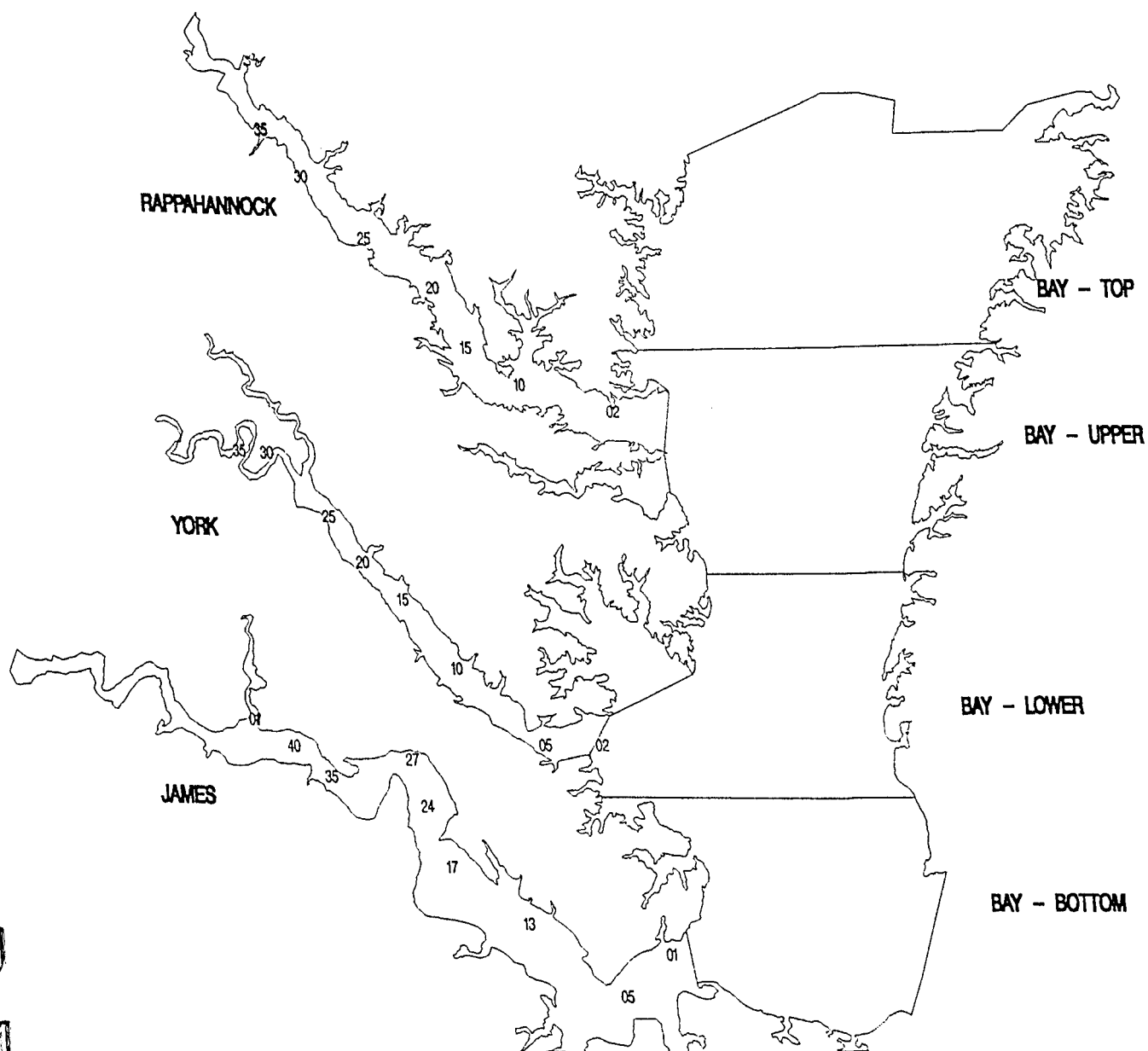
JUNE 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

Figure 8.

JULY 1986 Trawl Survey Station Locations

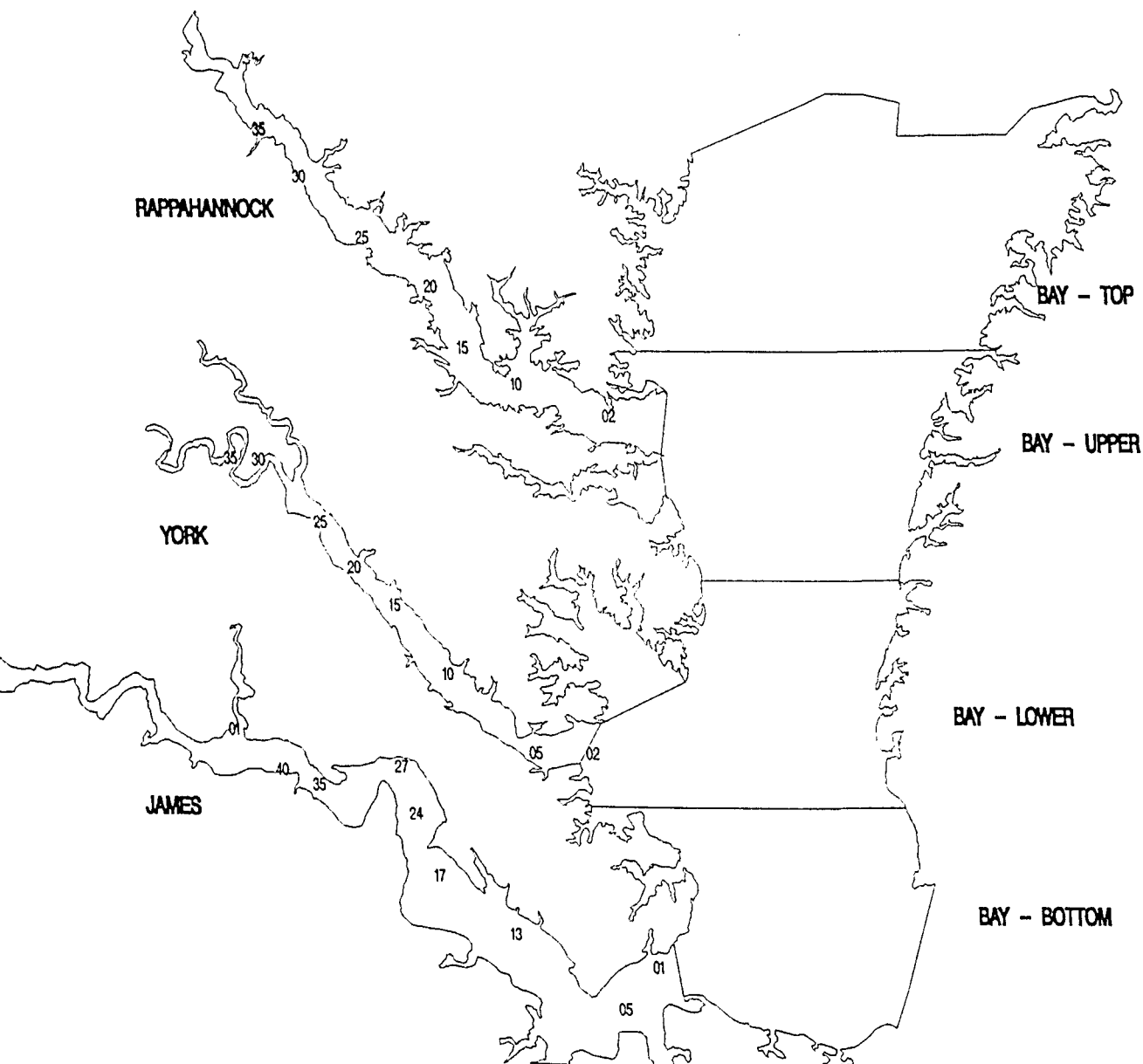


NOTE: Figures in rivers indicate river miles

Figure 9.

AUGUST 1986

Trawl Survey Station Locations

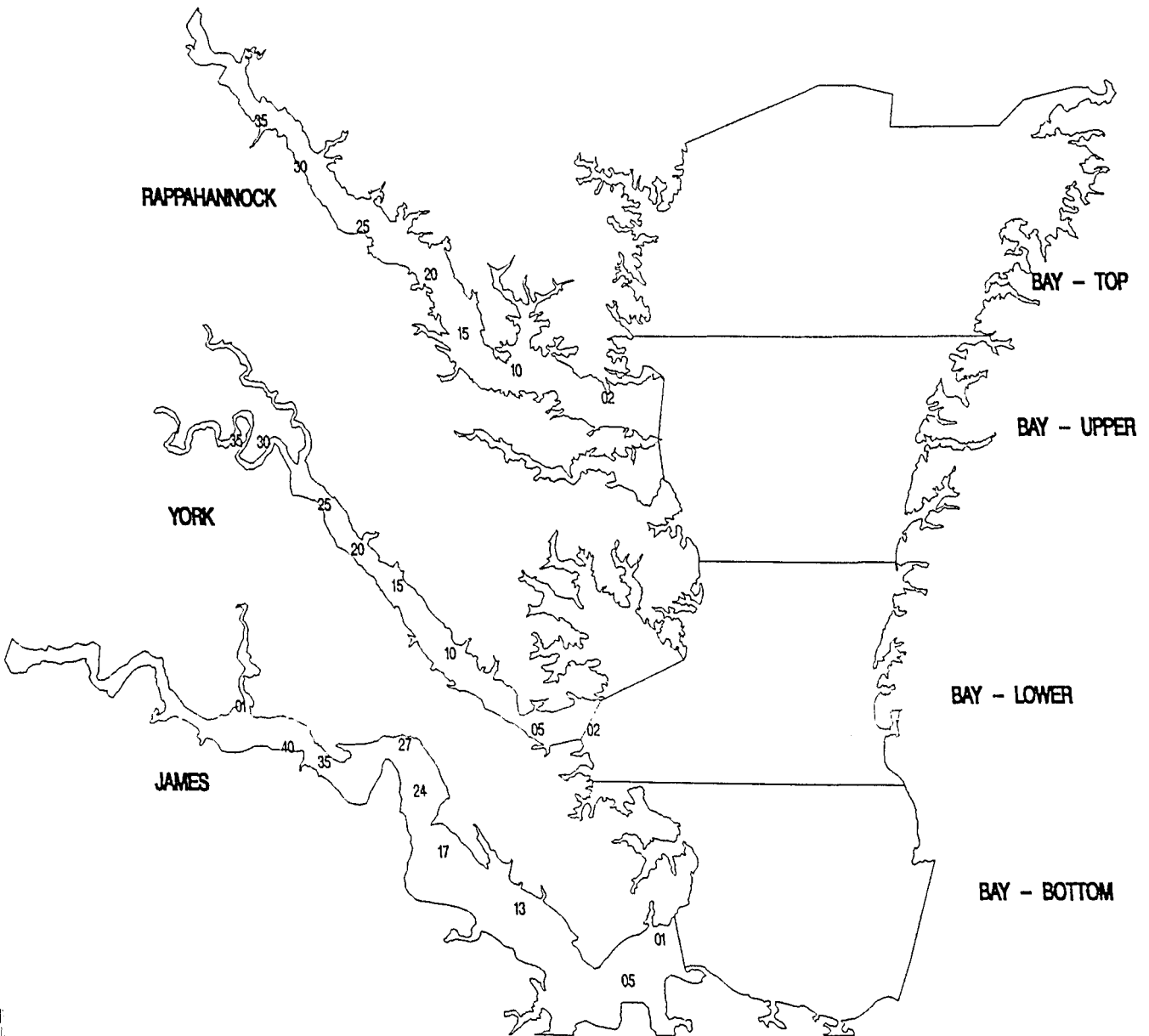


NOTE: Figures in rivers indicate river miles

Figure 10.

SEPTEMBER 1986

Trawl Survey Station Locations

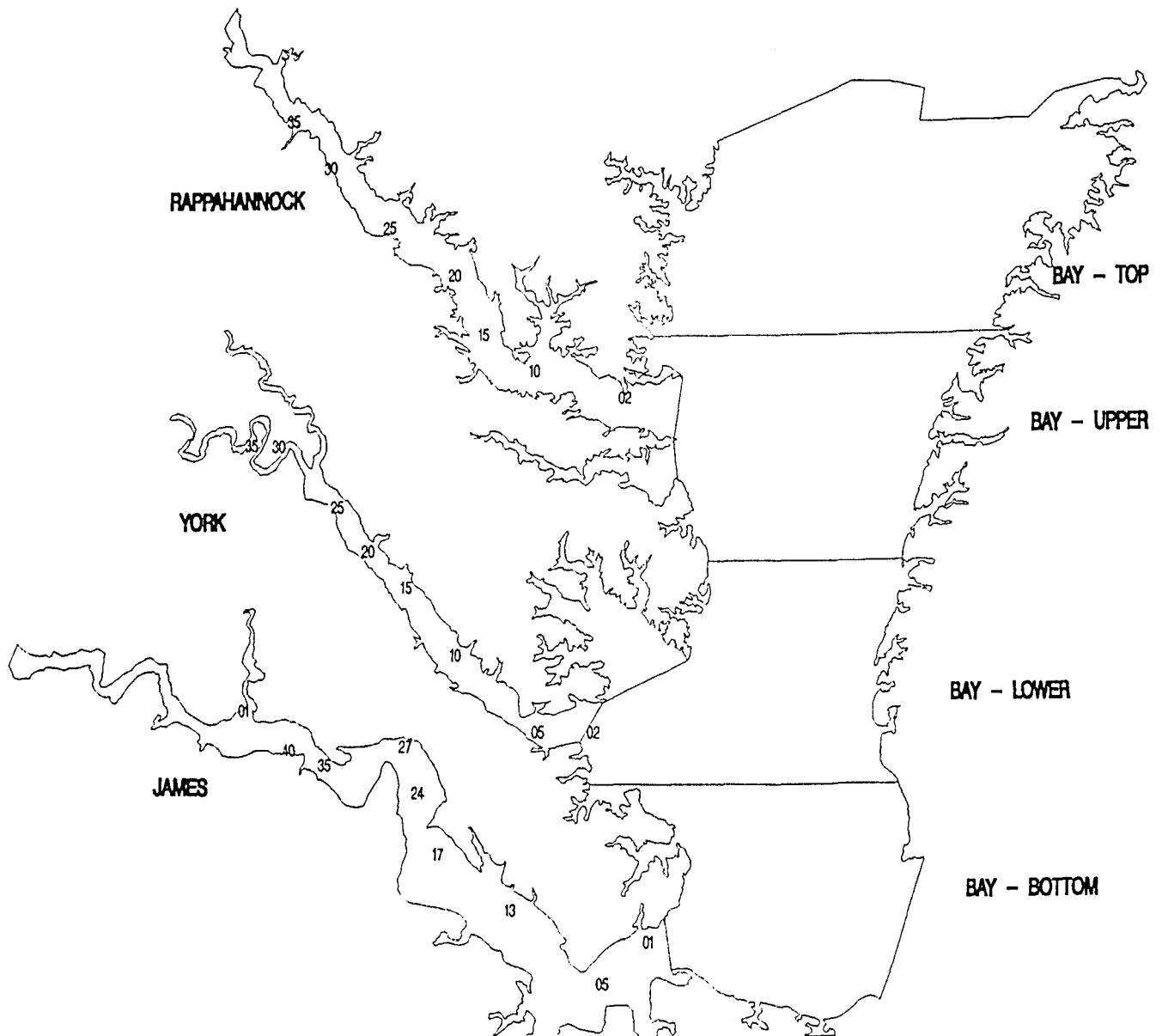


NOTE: Figures in rivers indicate river miles

Figure 11.

OCTOBER 1986

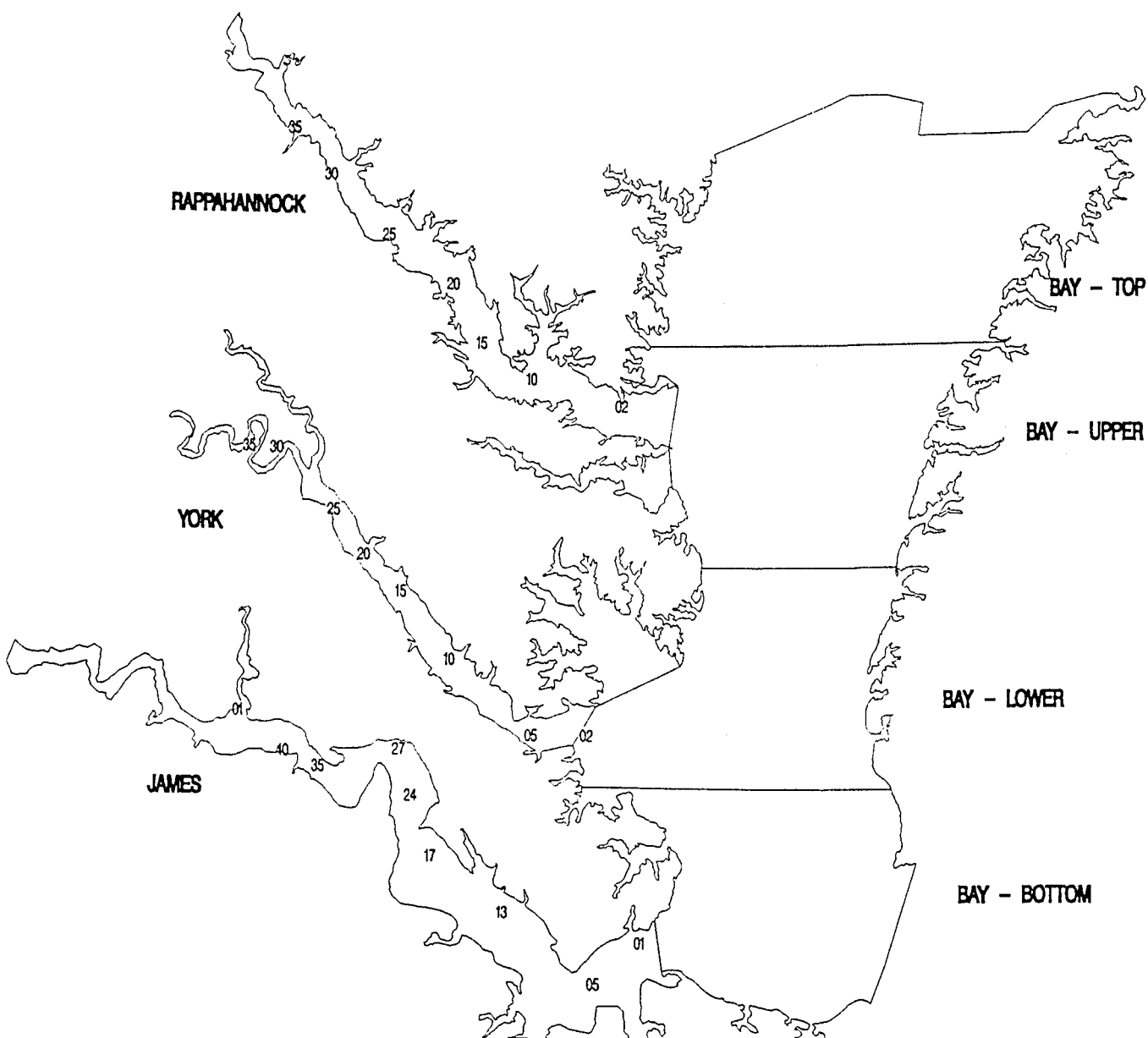
Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

Figure 12.

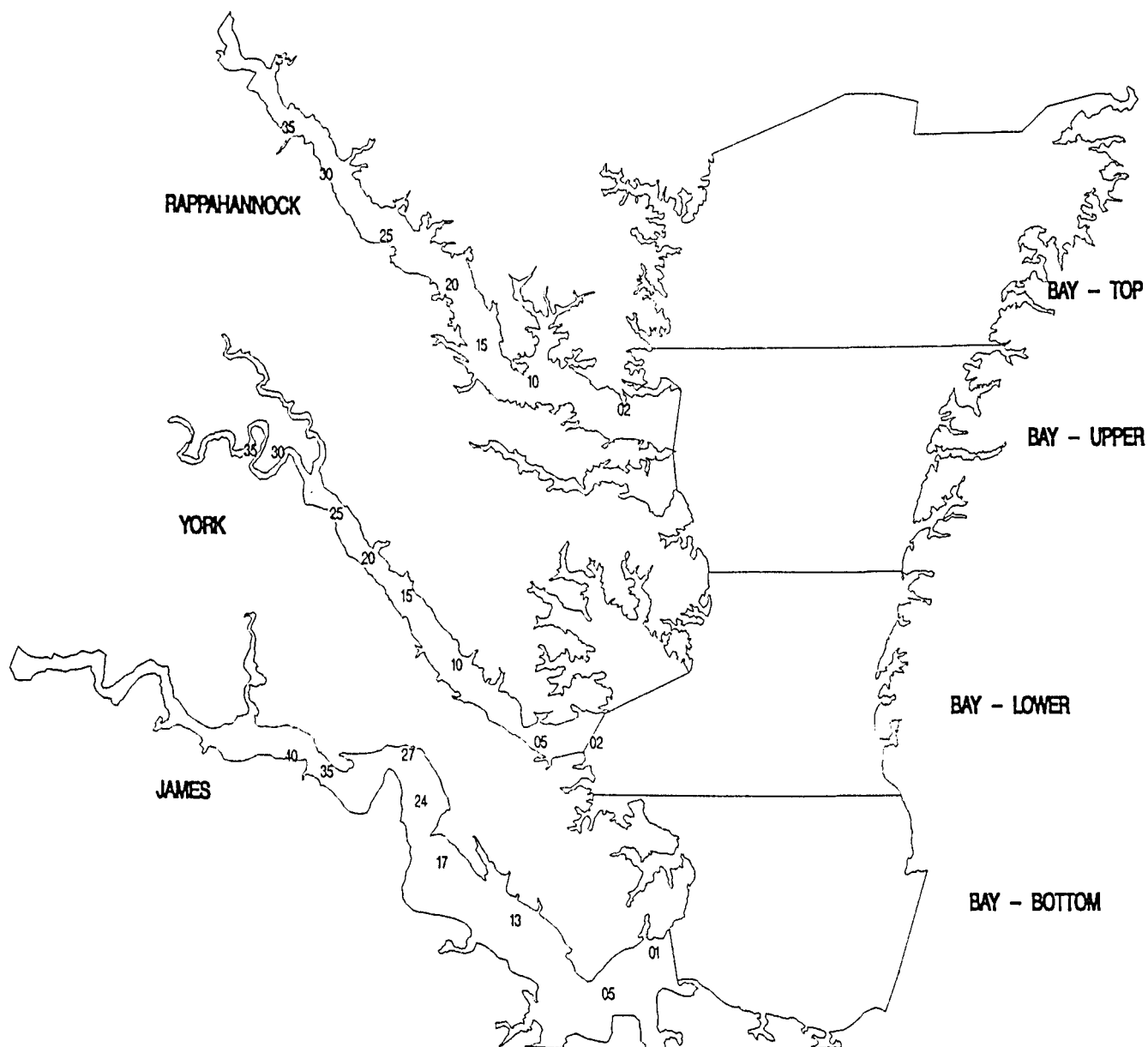
NOVEMBER 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

Figure 13.

DECEMBER 1986 Trawl Survey Station Locations



NOTE: Figures in rivers indicate river miles

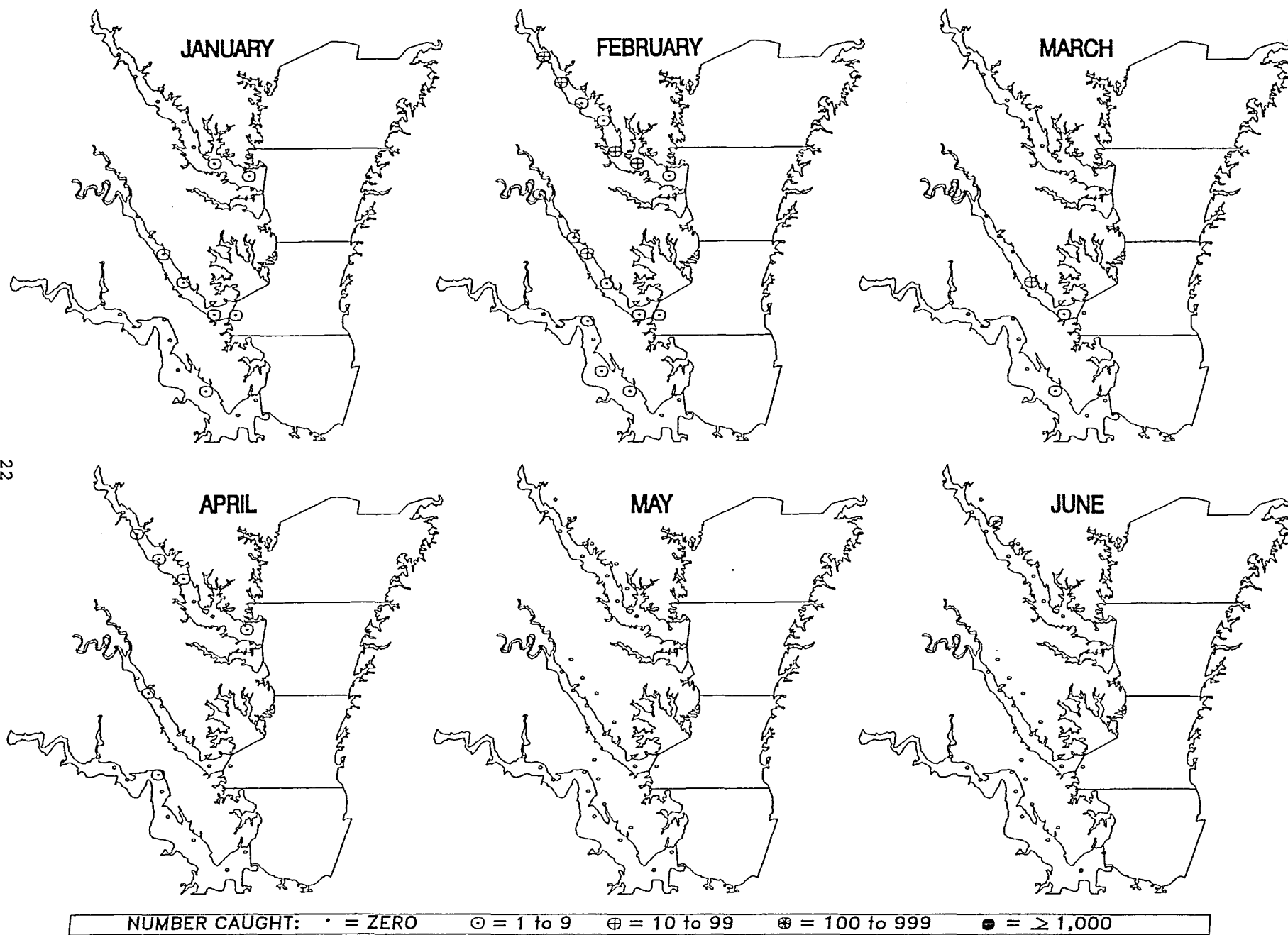
Figures 14-44. Geographic distribution, by month, of predominant species. Density values represent total number of specimens caught.

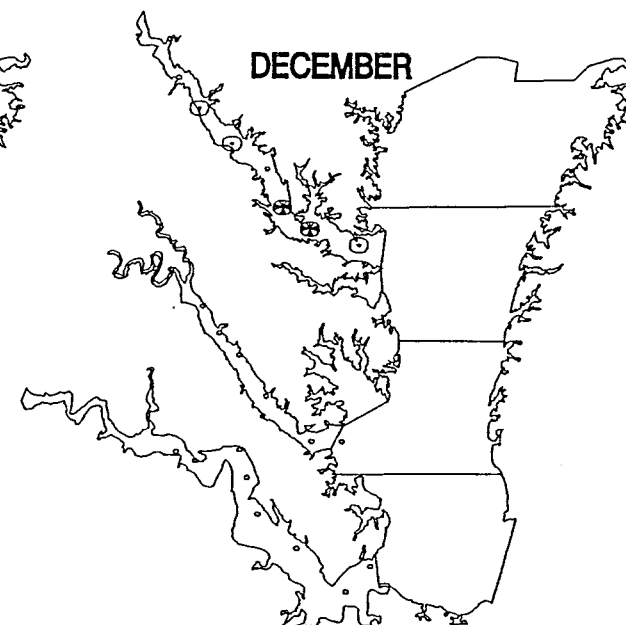
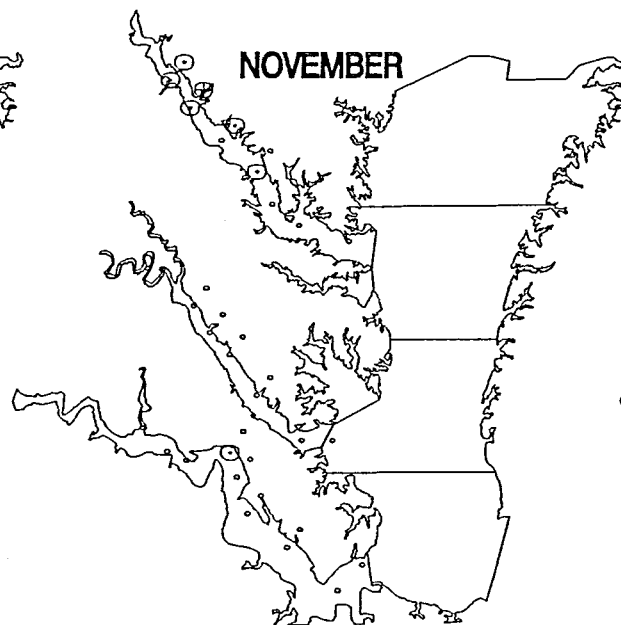
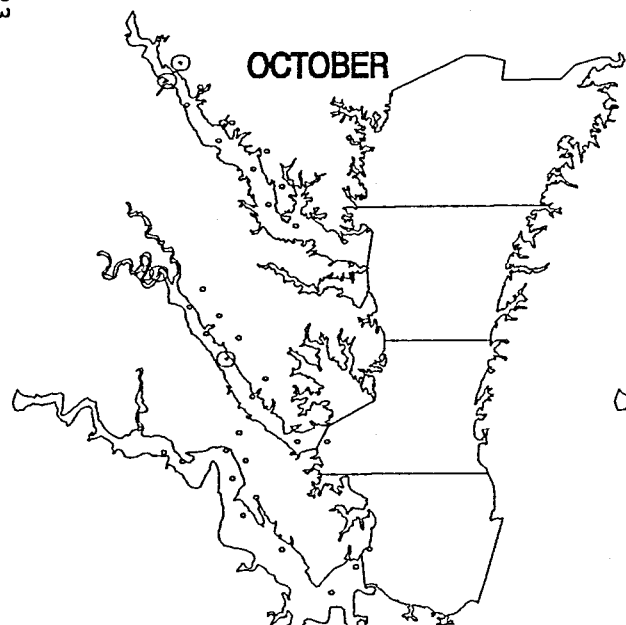
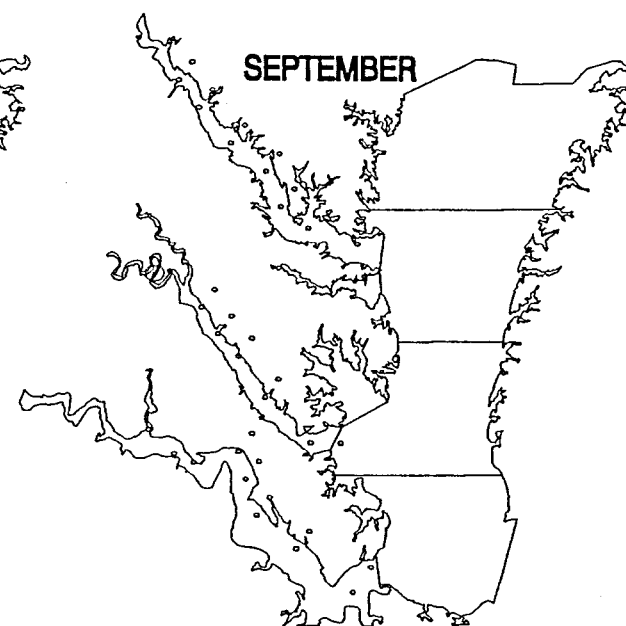
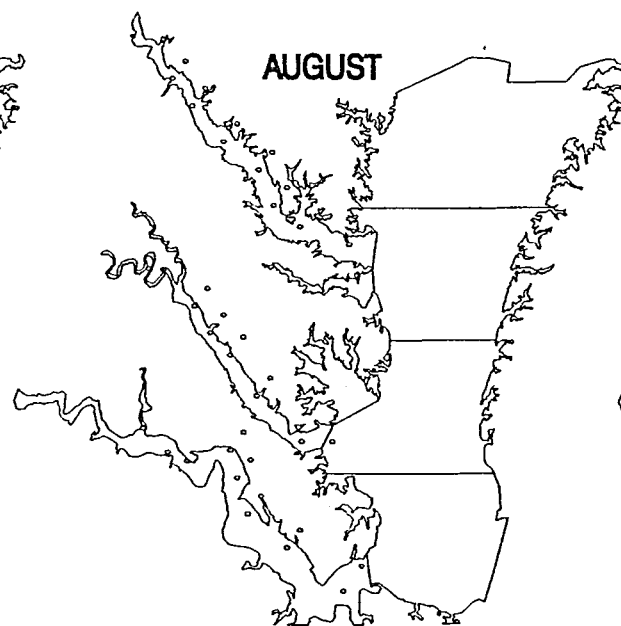
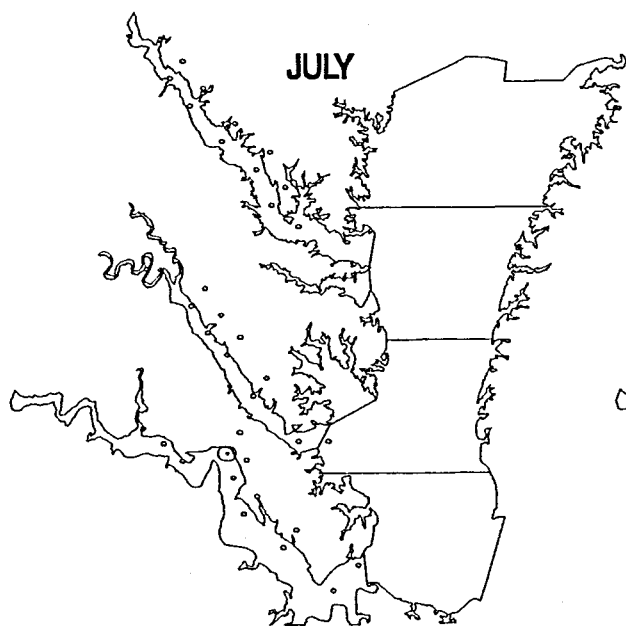
Notes:

- A. Due to LORAN distortion at upriver stations and to computer software control of the placement of figures on these maps, the locations shown may vary slightly from the actual stations occupied. For exact latitude and longitude refer to Tables 2-13.
- B. Several species are included in Figures 14-44 which were not caught (or were caught in limited numbers) in 1986. Due to the presence of these species in past reports, they will be included.
- C. For purposes of clarity, the location of a second tow performed at certain stations will be offset two minutes north and two minutes east.

Figure 14

Alewife





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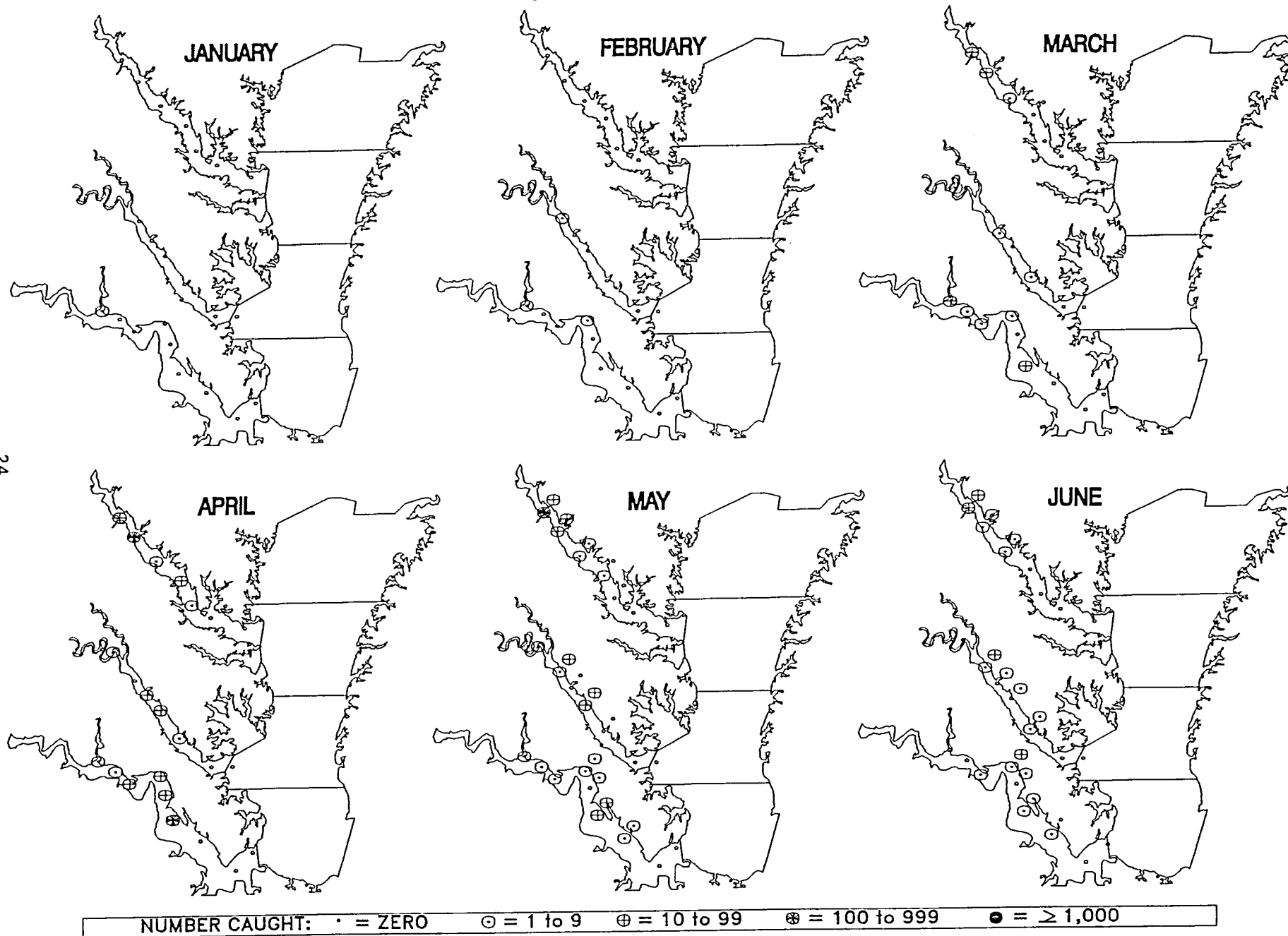
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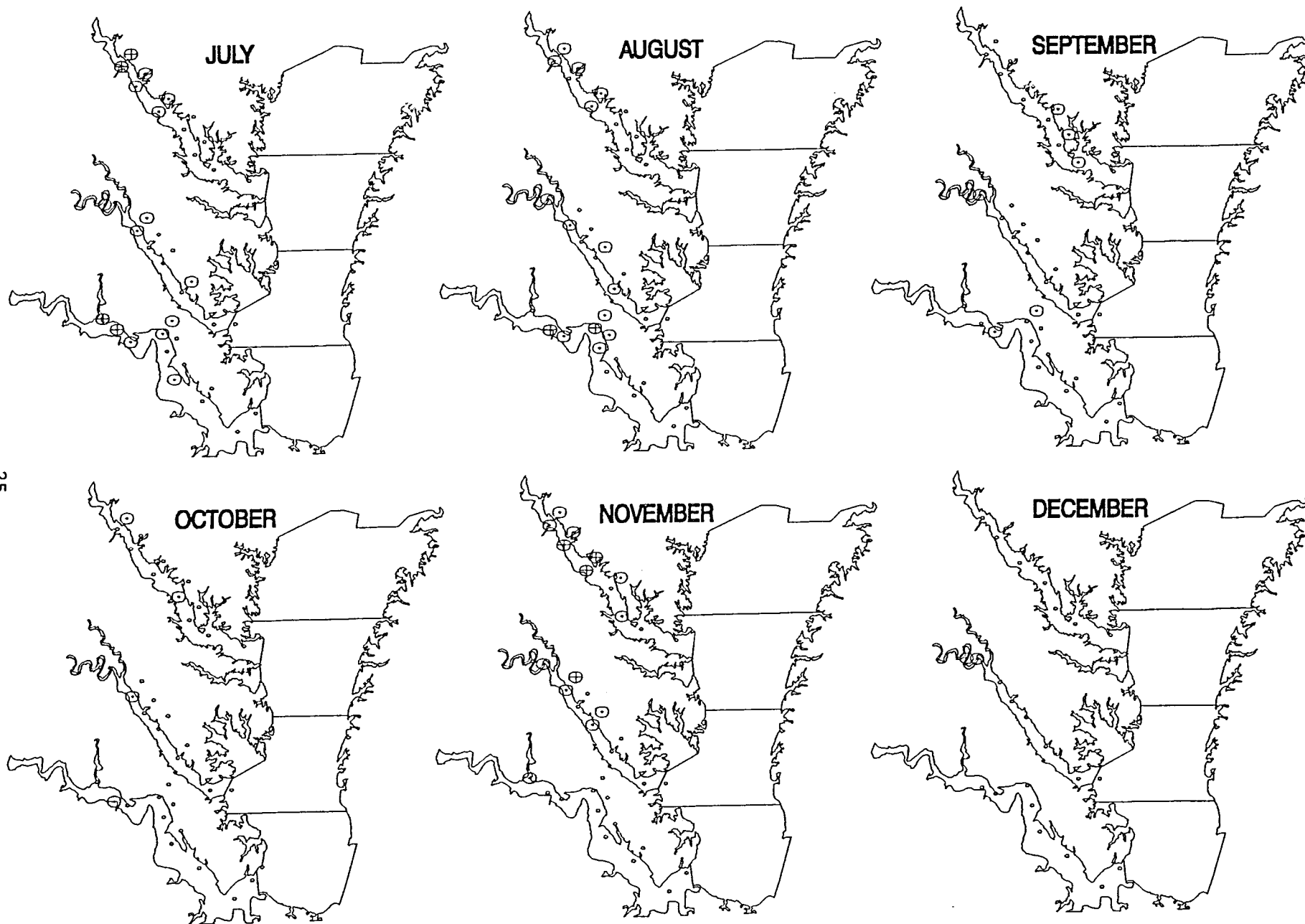
⊗ = 100 to 999

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Figure 15

American Eel

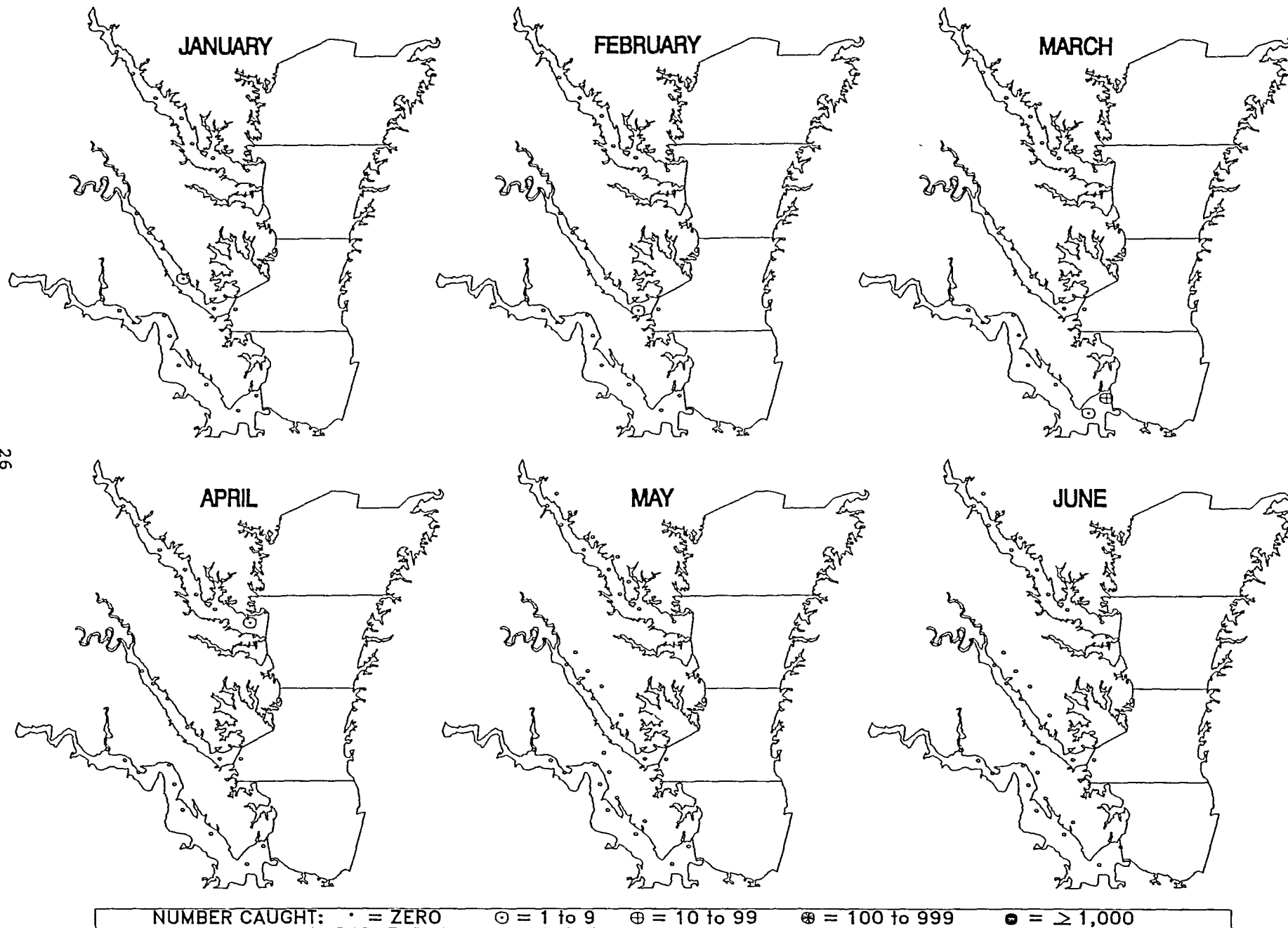


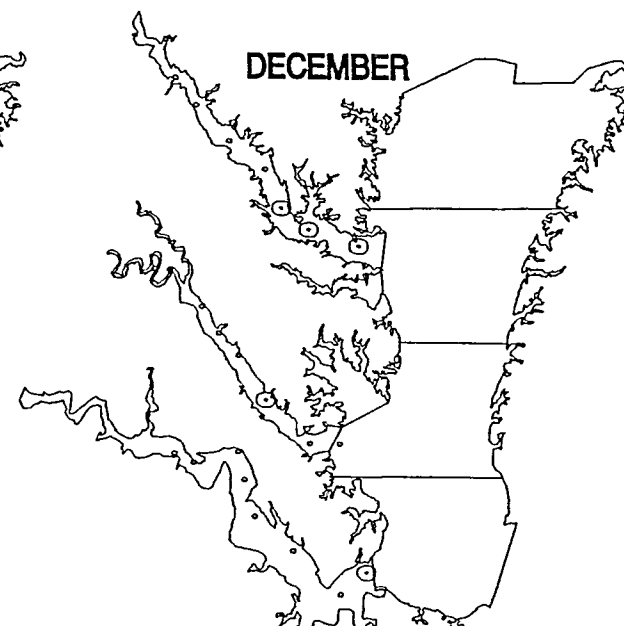
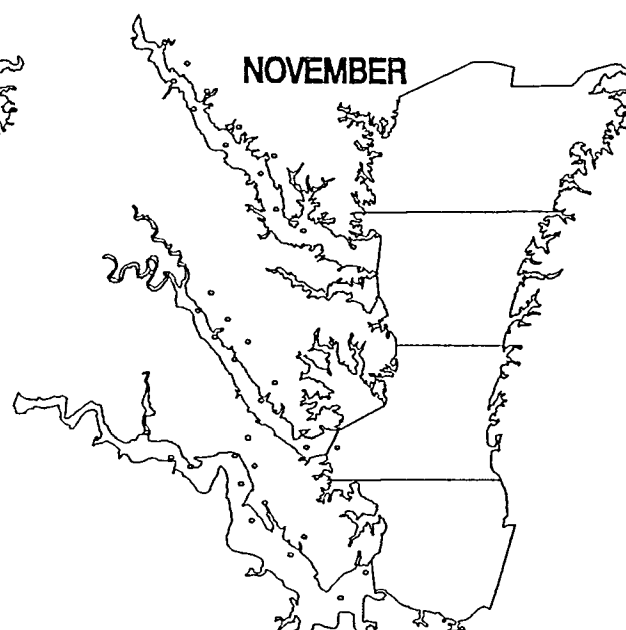
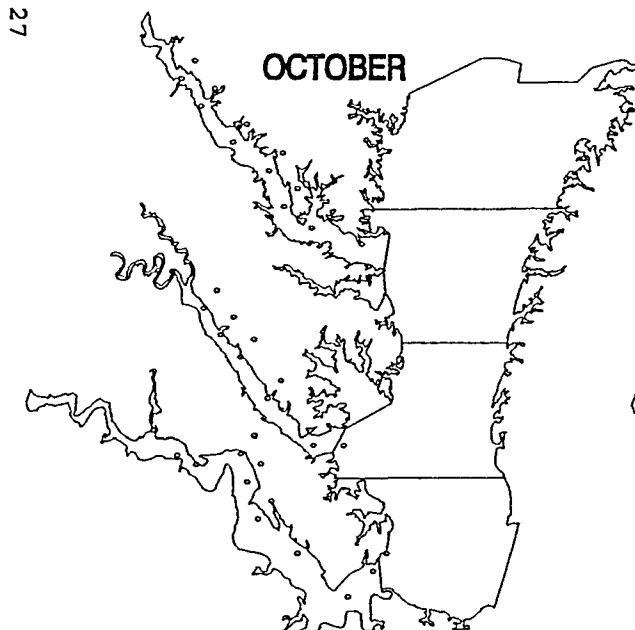
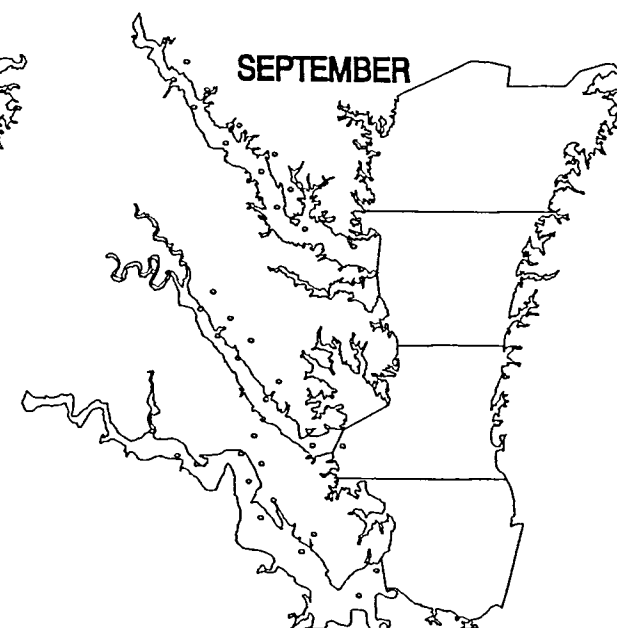
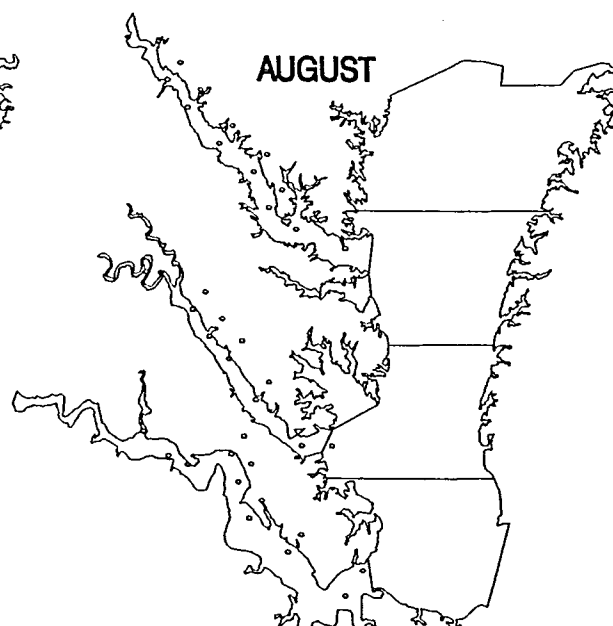
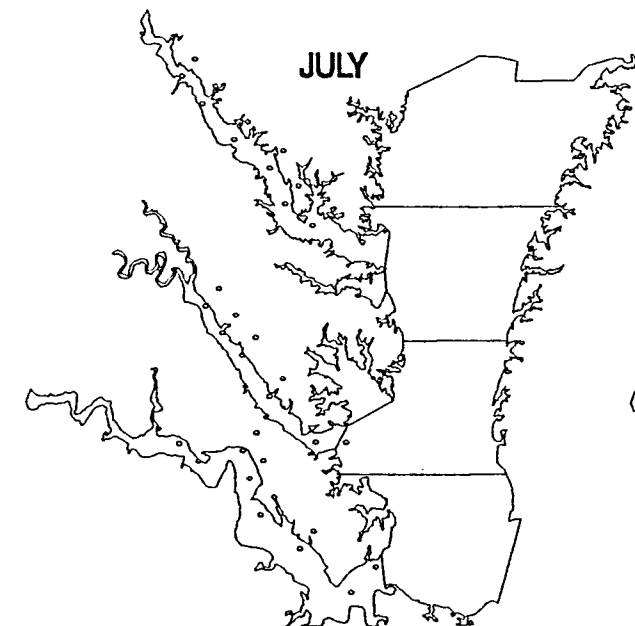


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Figure 16

American Shad

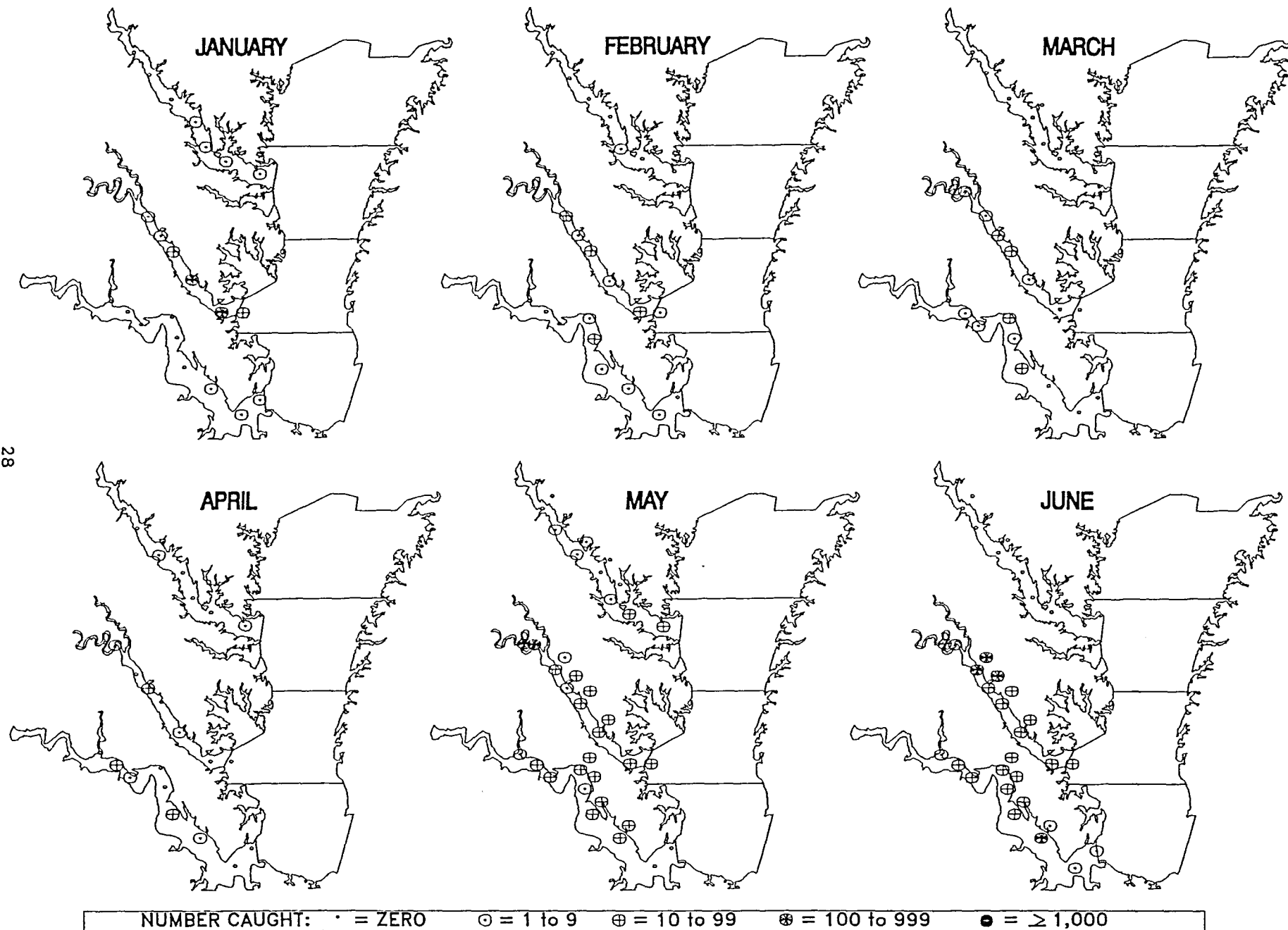




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Figure 17

Atlantic Croaker



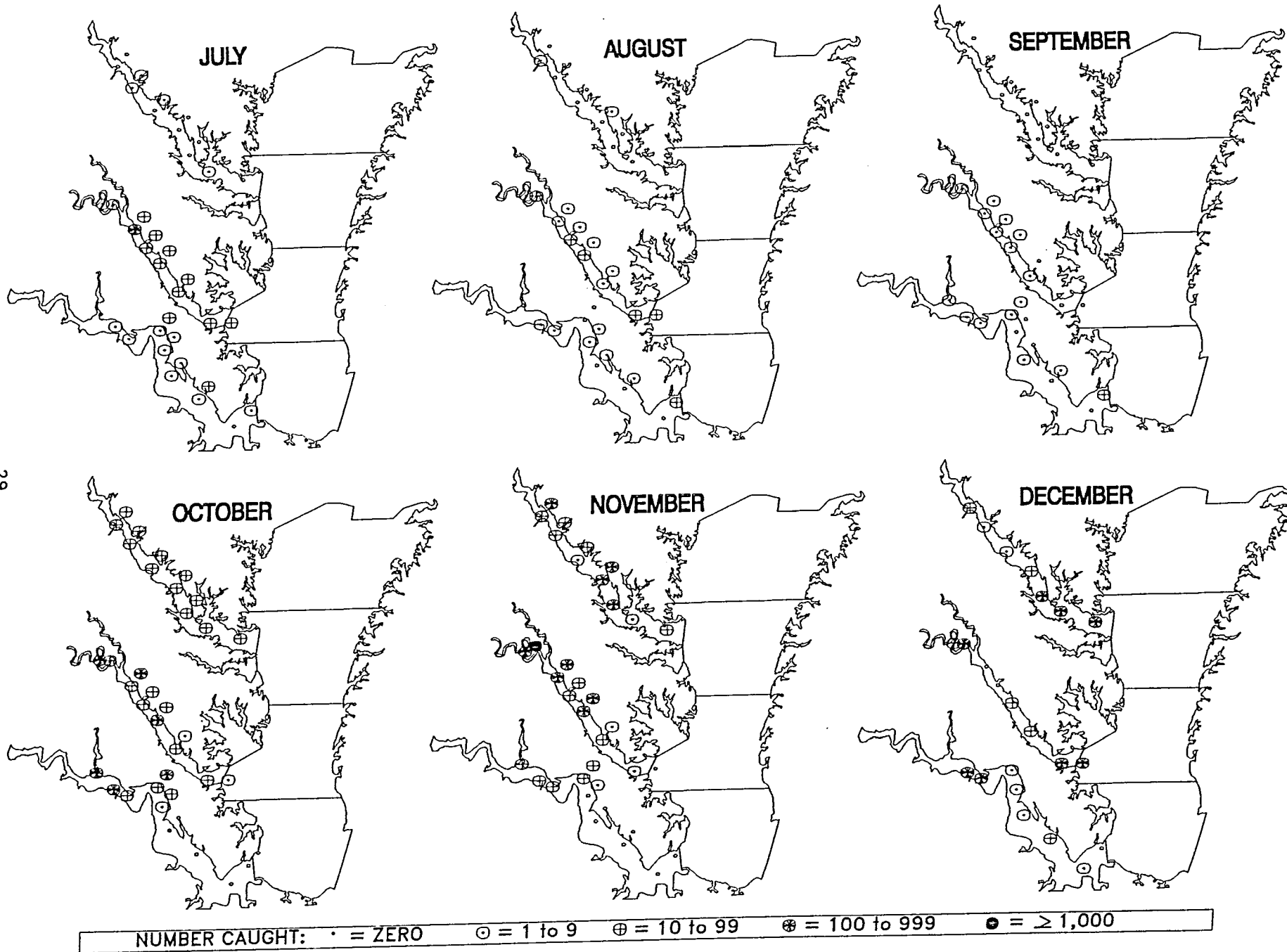
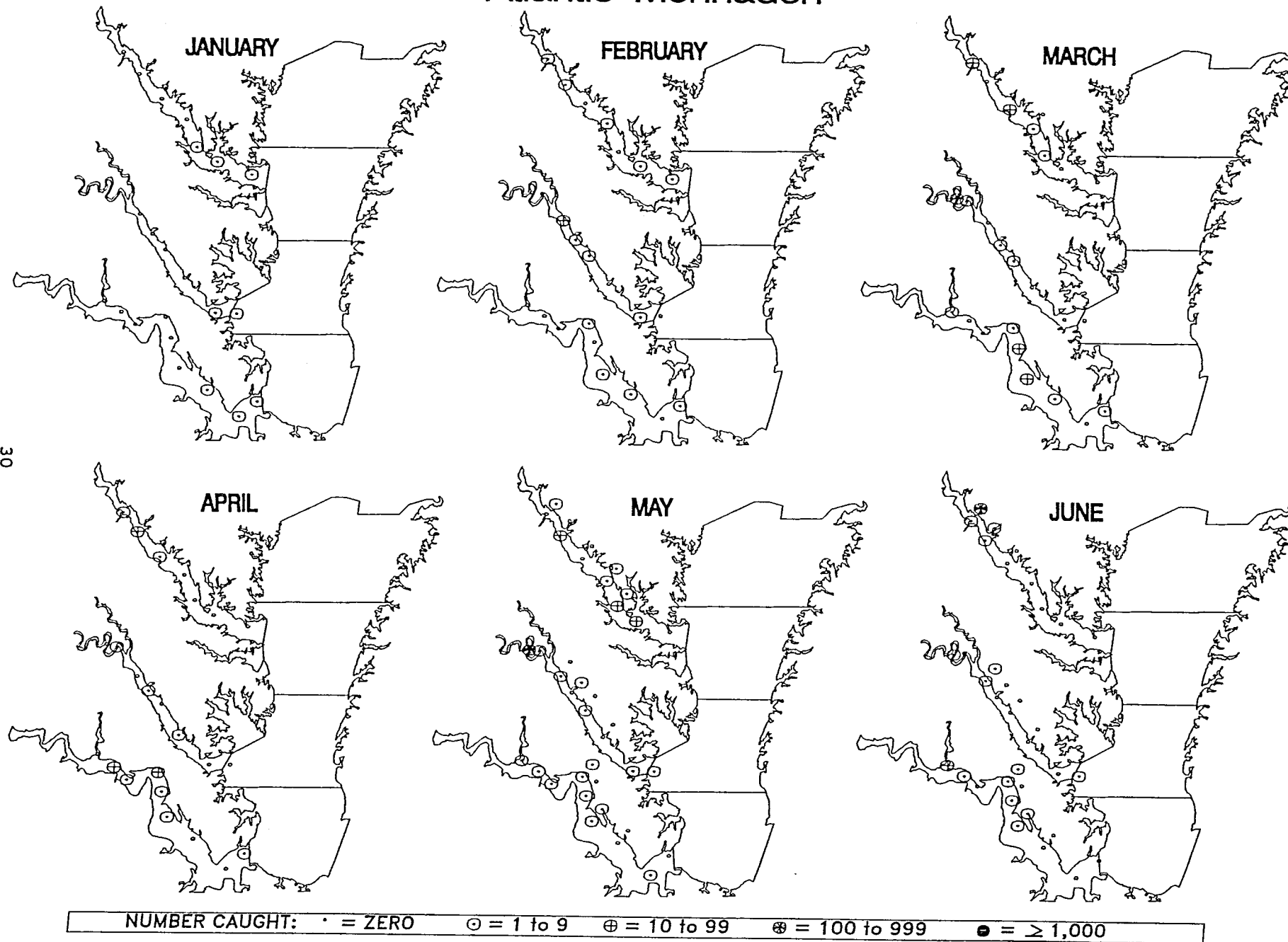
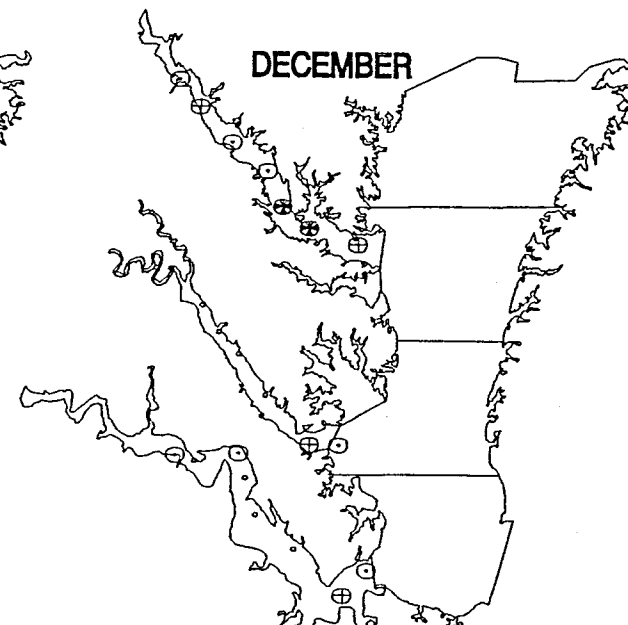
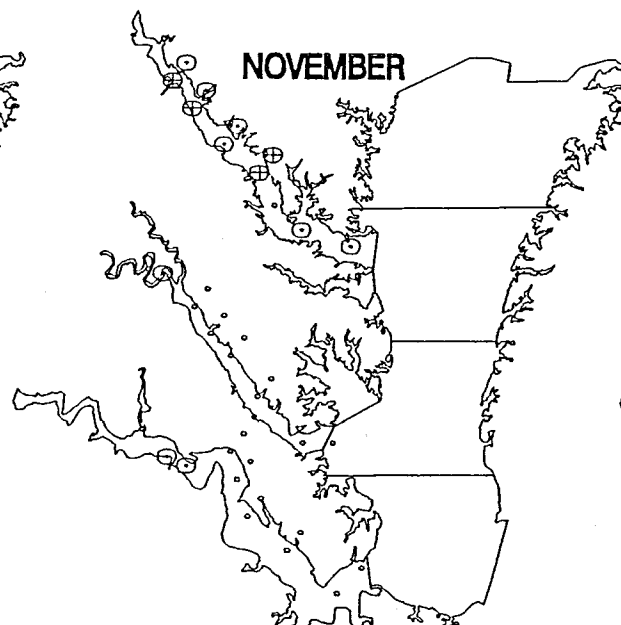
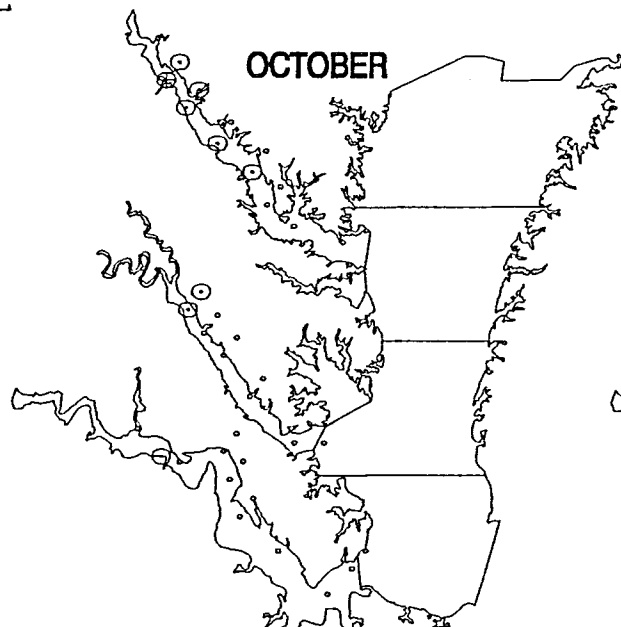
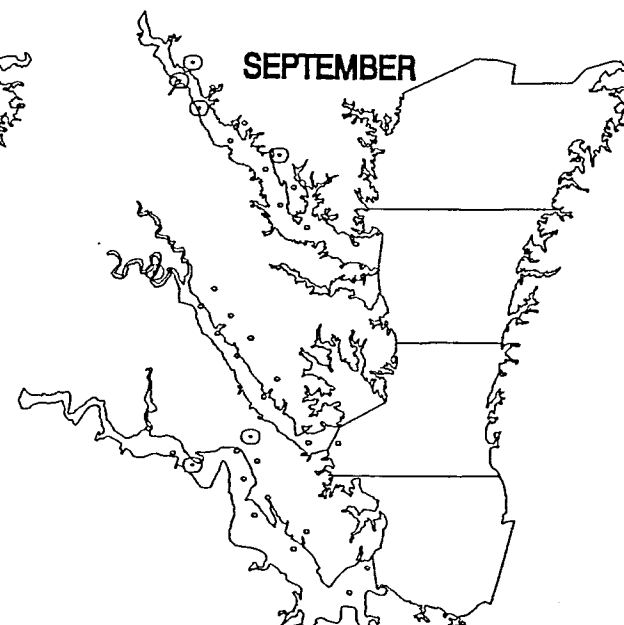
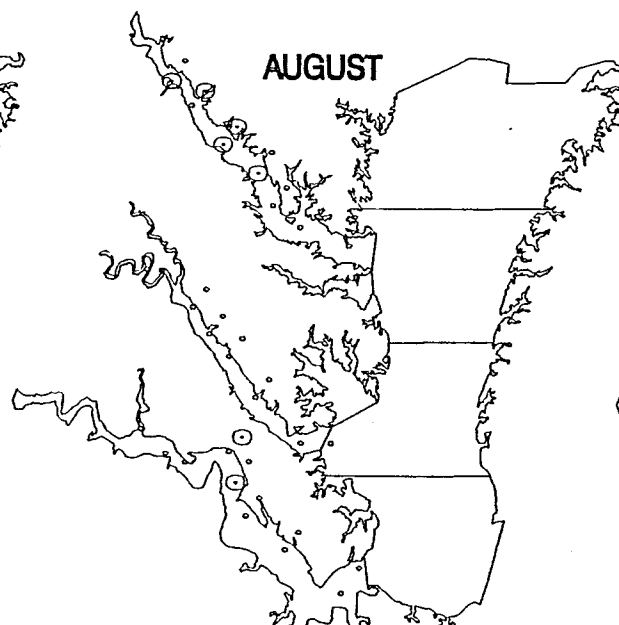
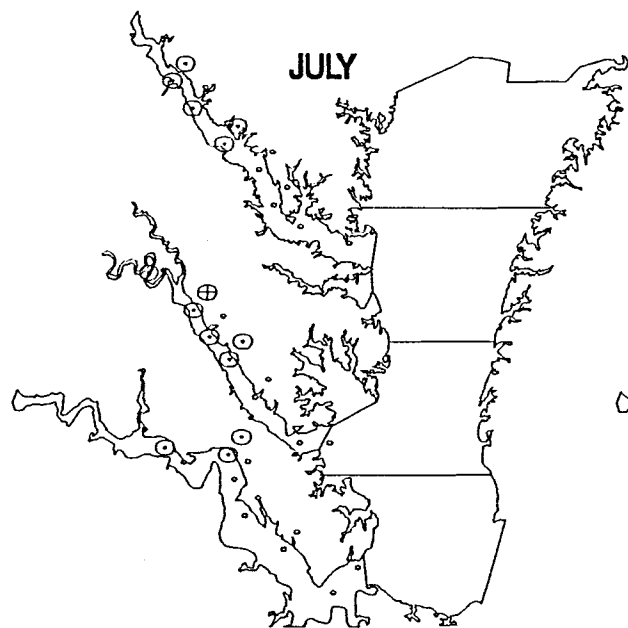


Figure 18

Atlantic Menhaden





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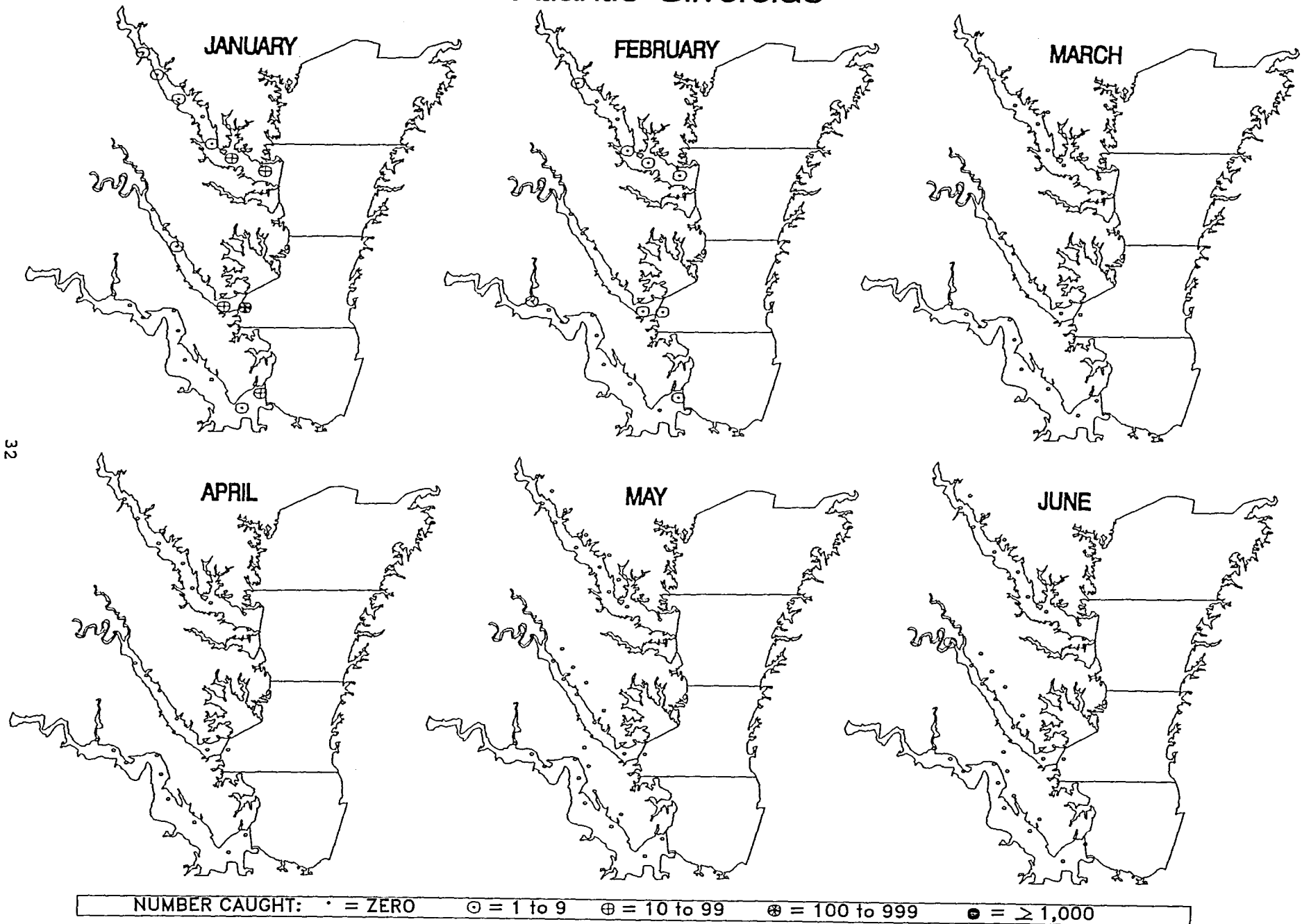
⊕ = 10 to 99

⊗ = 100 to 999

● = ≥ 1,000

Figure 19

Atlantic Silverside



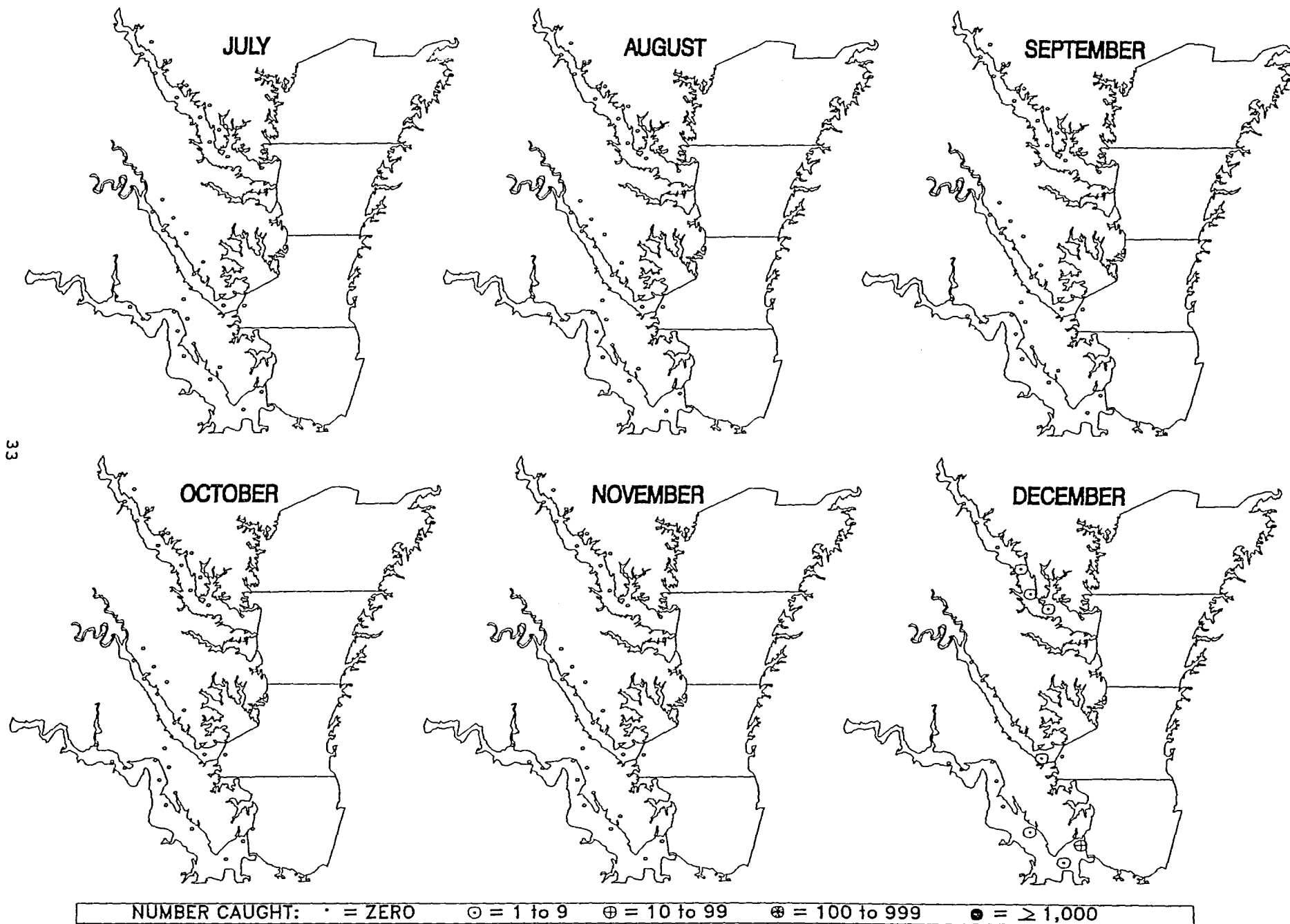
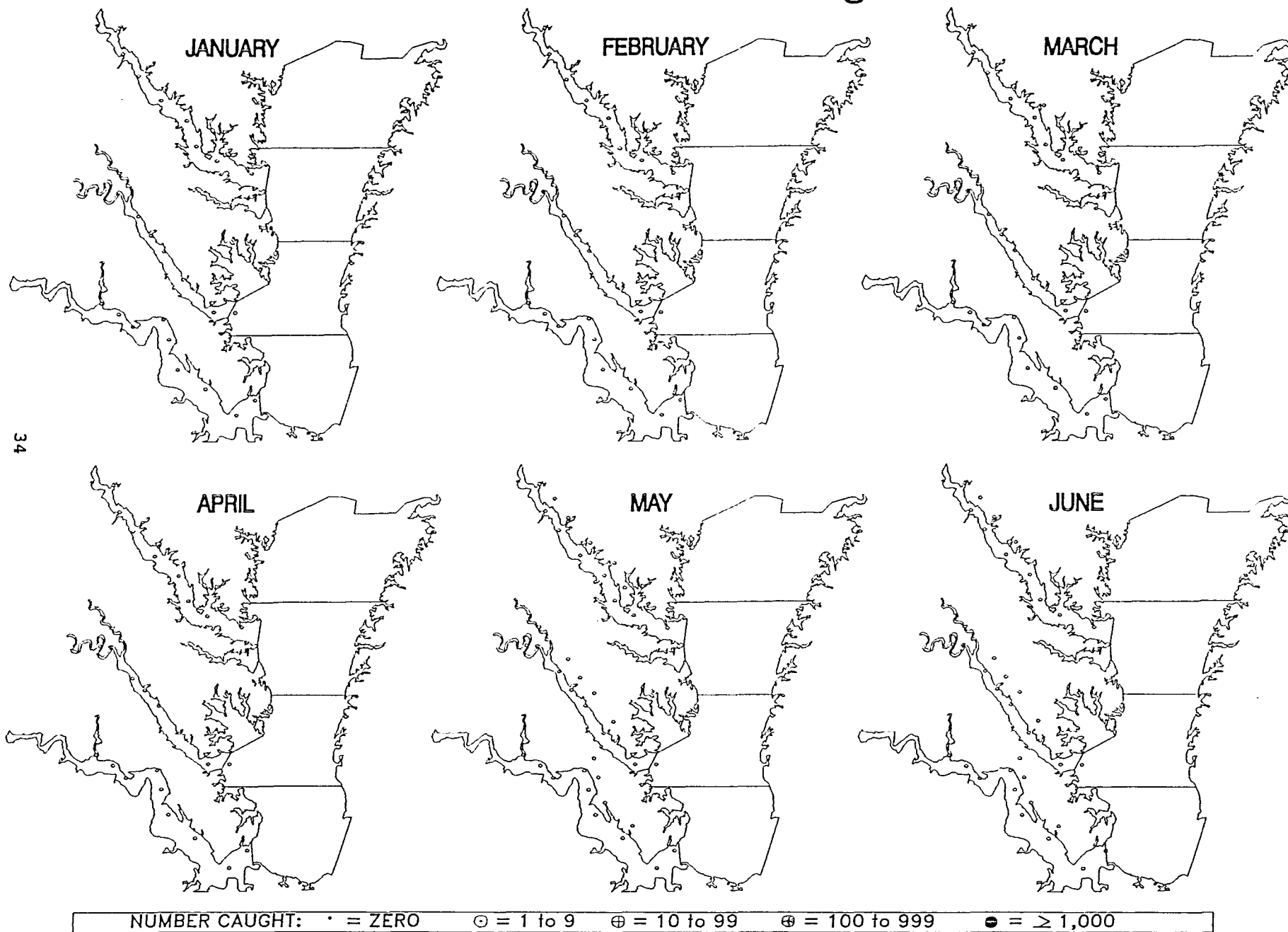
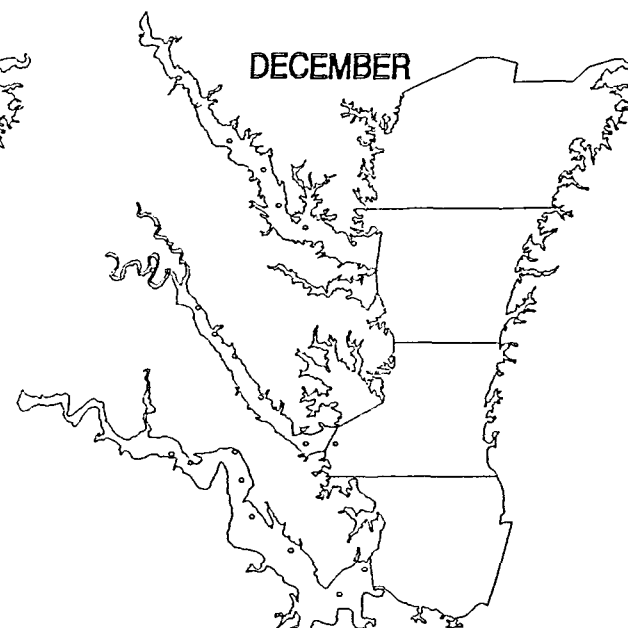
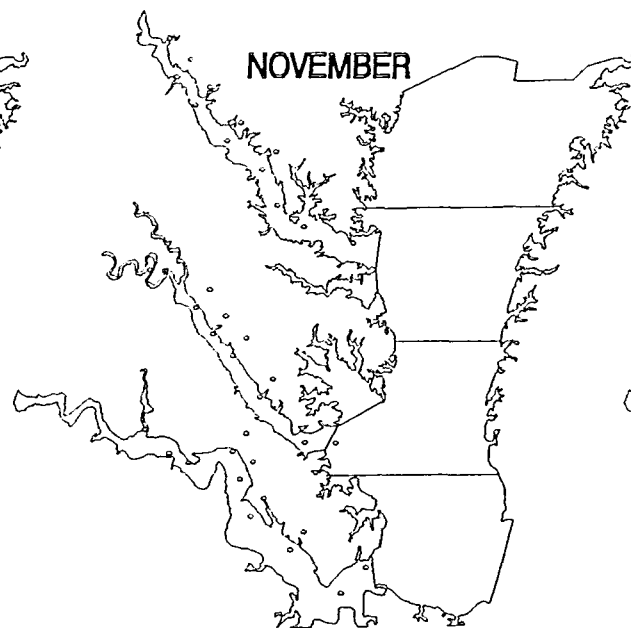
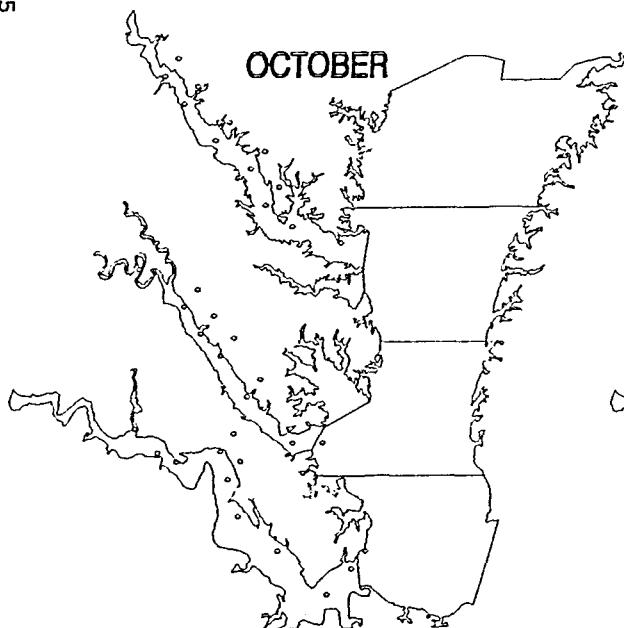
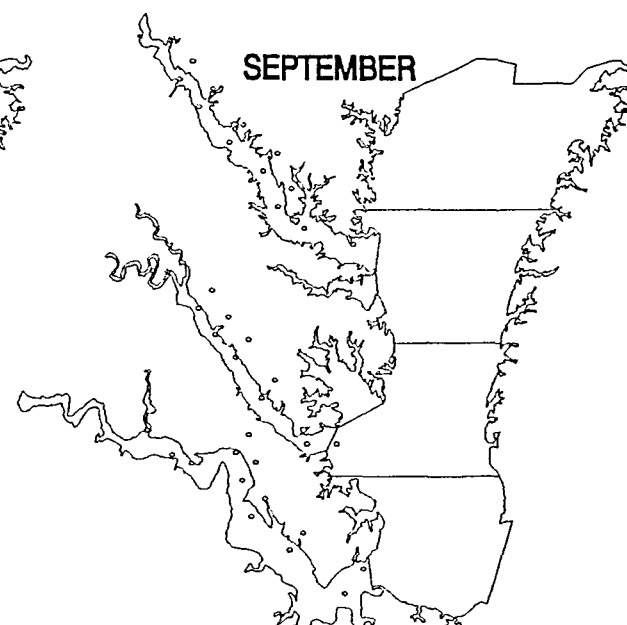
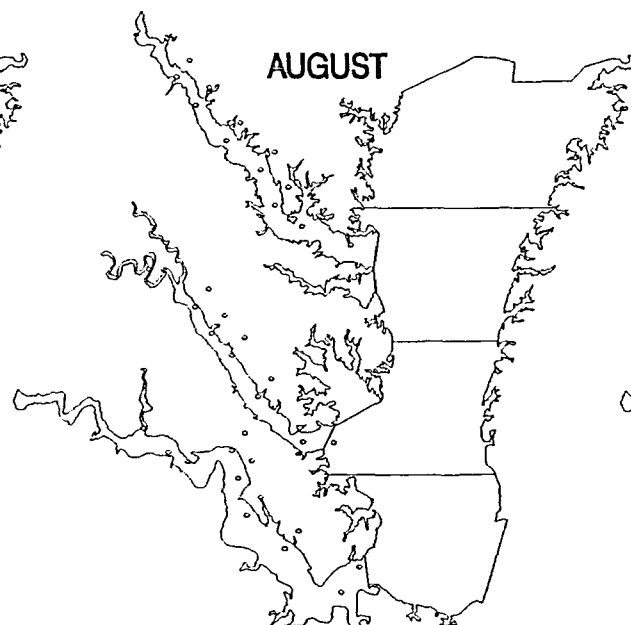
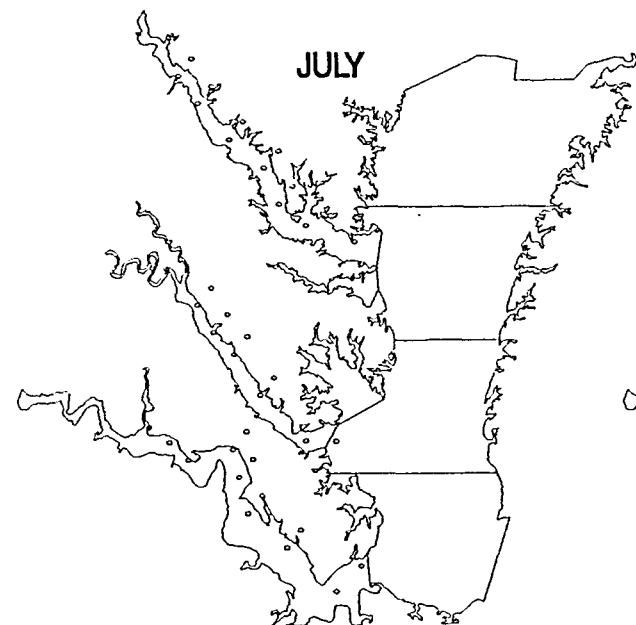


Figure 20

Atlantic Thread Herring





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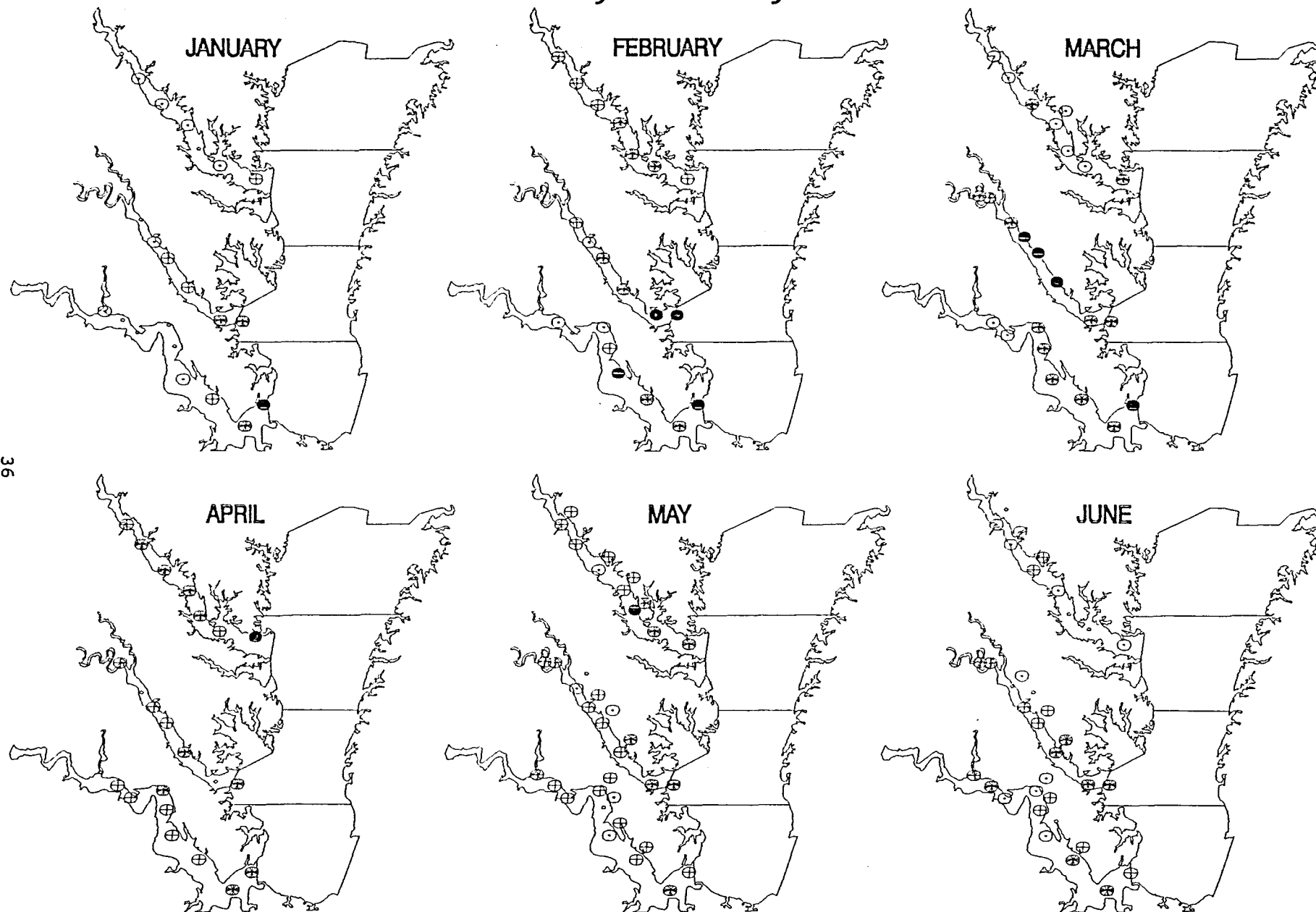
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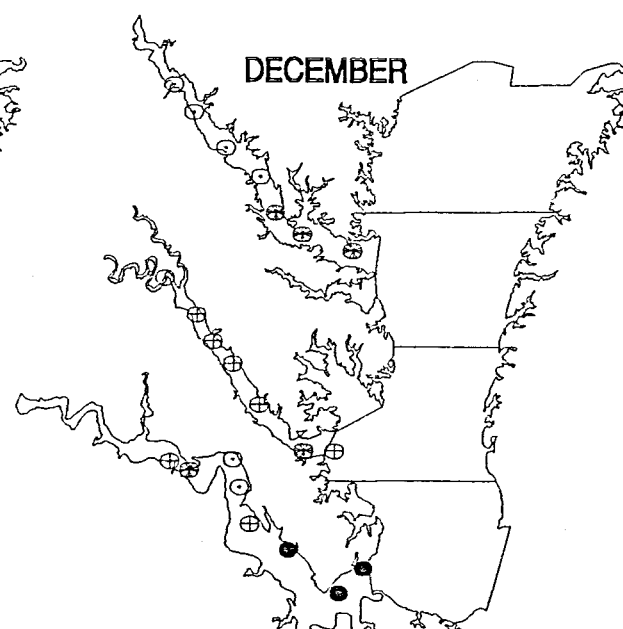
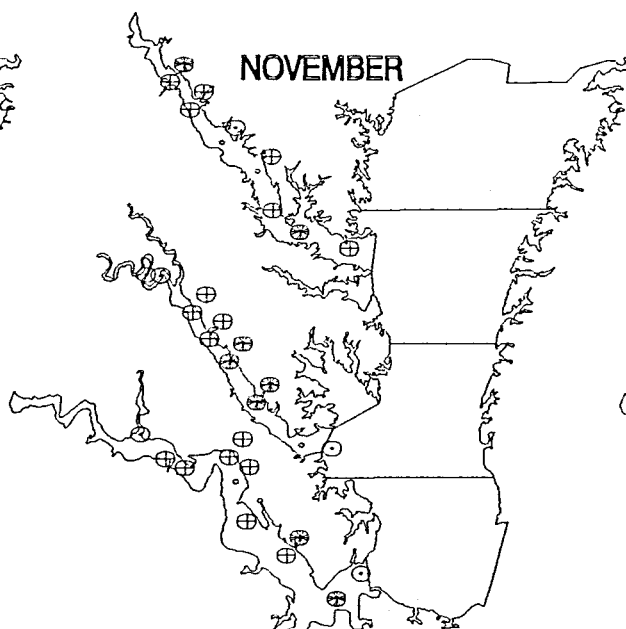
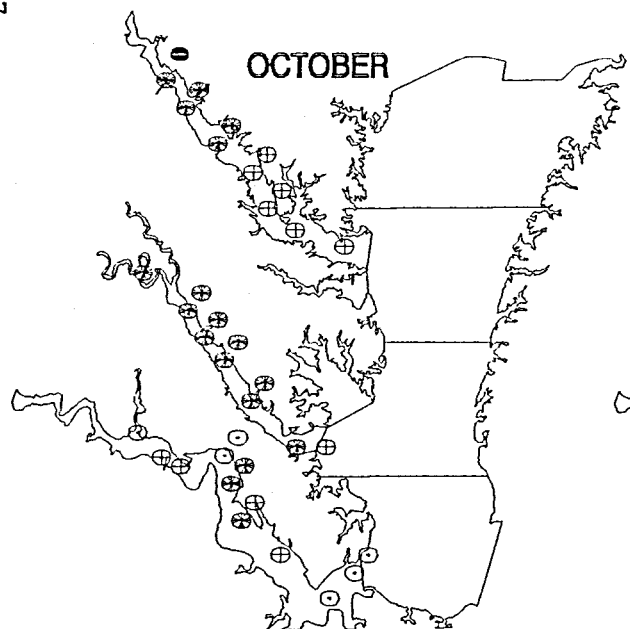
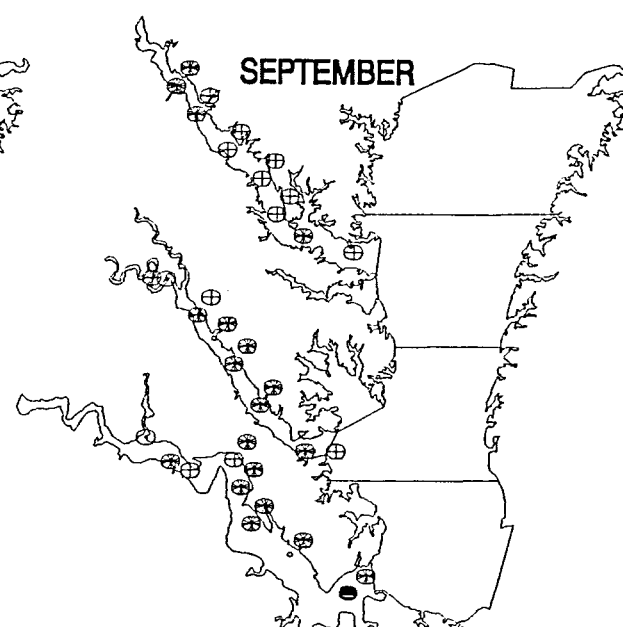
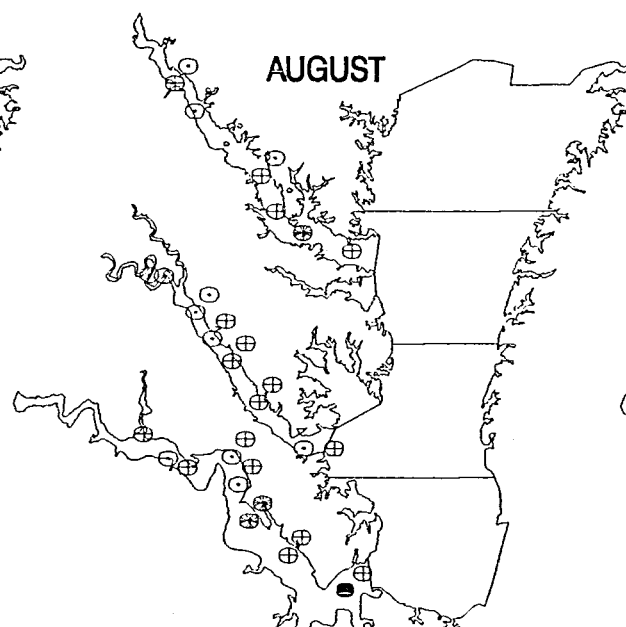
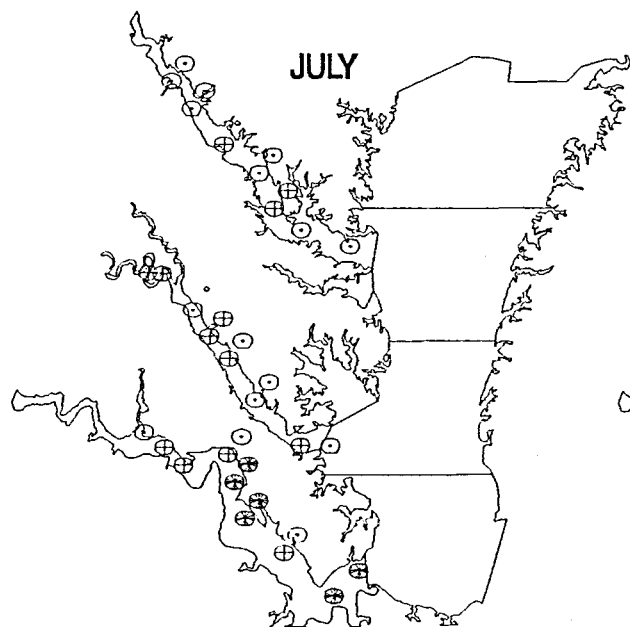
⊕ = 100 to 999

● = ≥ 1,000

Figure 21

Bay Anchovy





NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

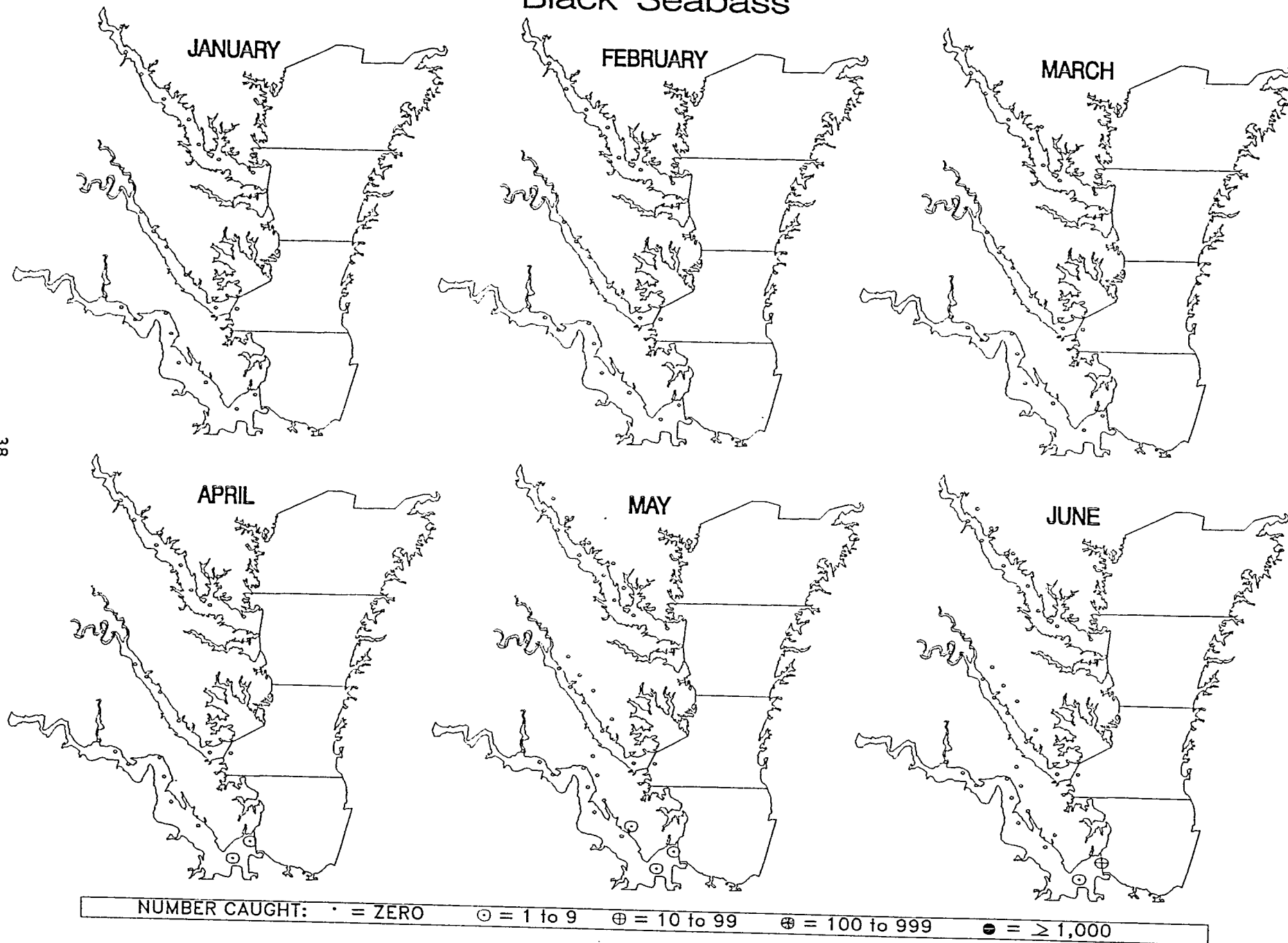
⊕ = 10 to 99

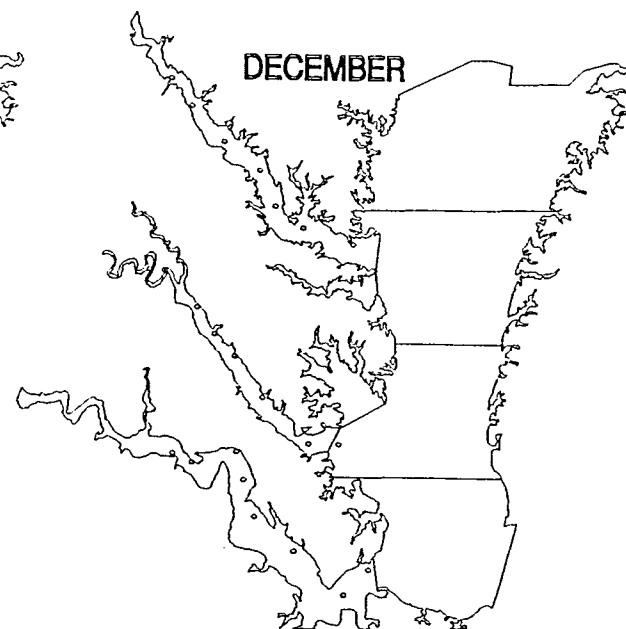
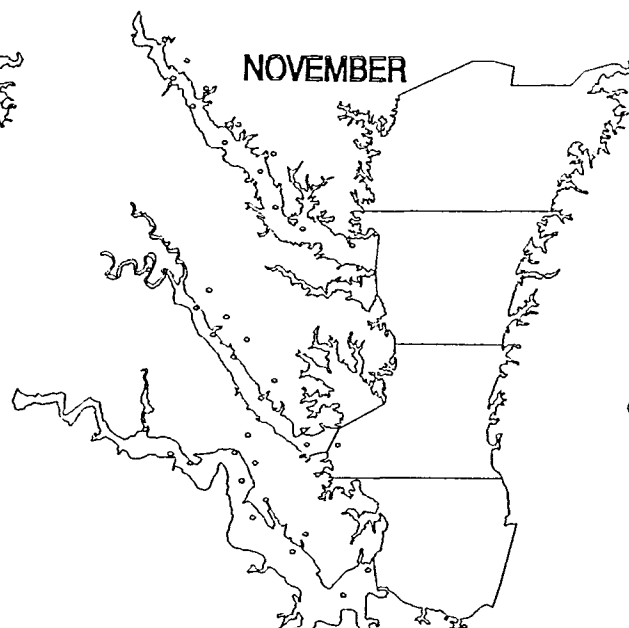
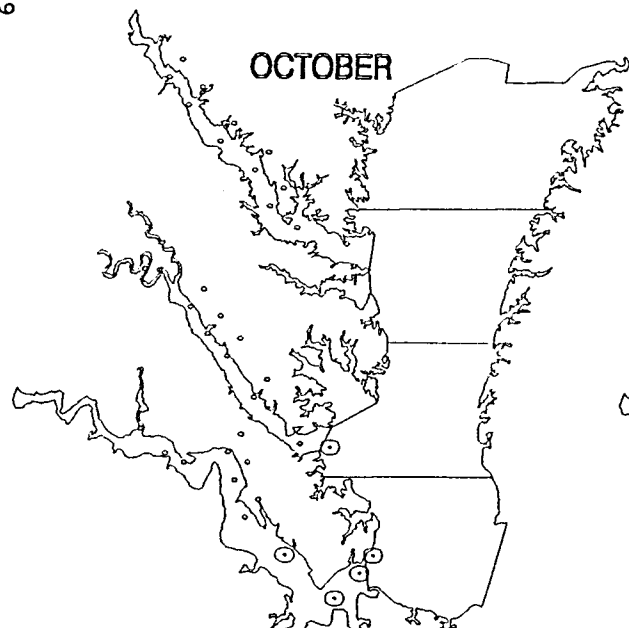
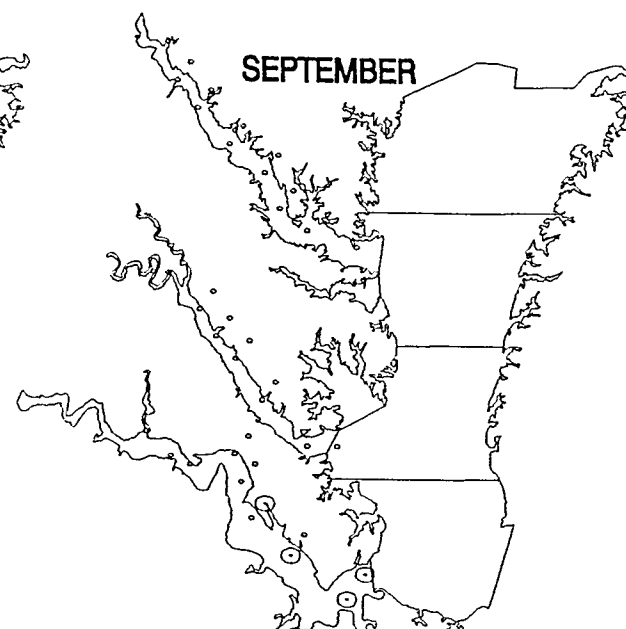
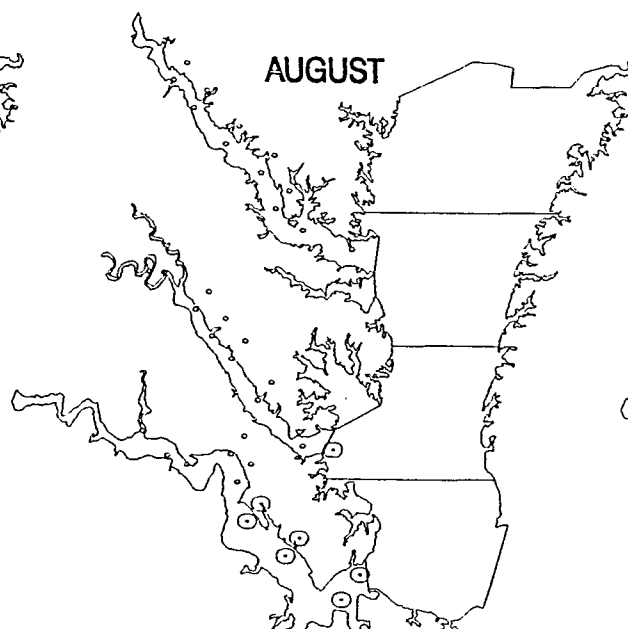
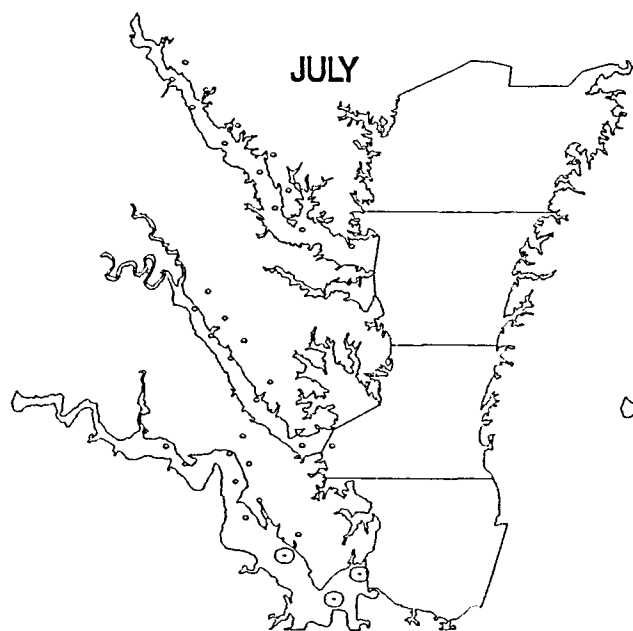
⊗ = 100 to 999

● = ≥ 1,000

Figure 22

Black Seabass

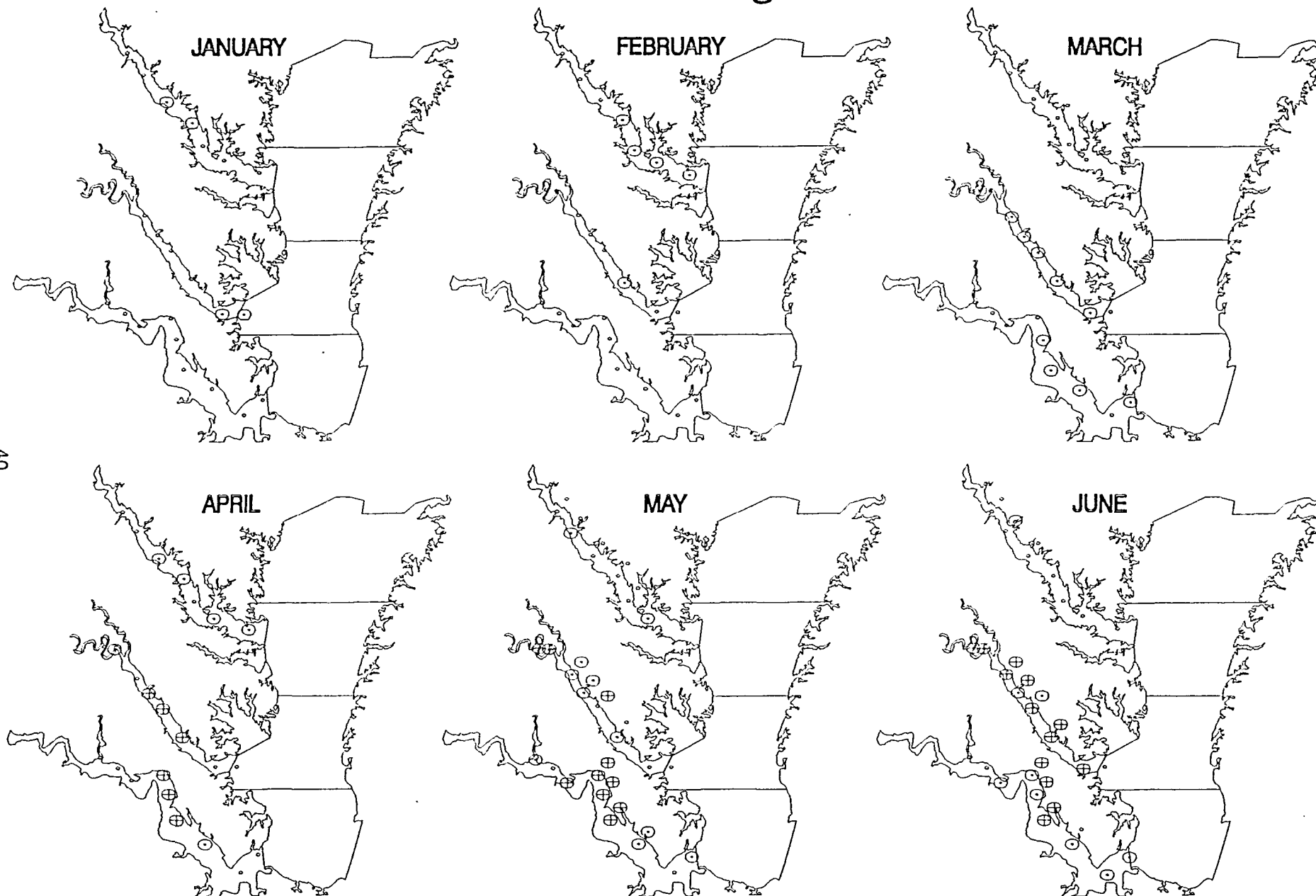




NUMBER CAUGHT: · = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 23

Blackcheek Tonguefish



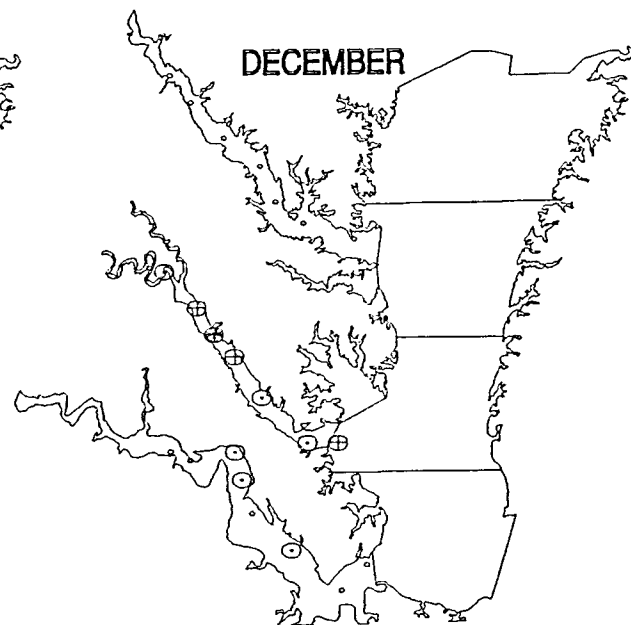
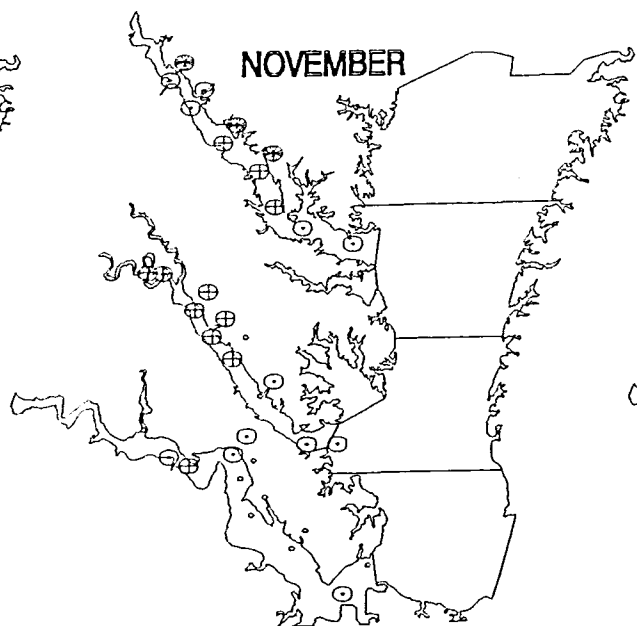
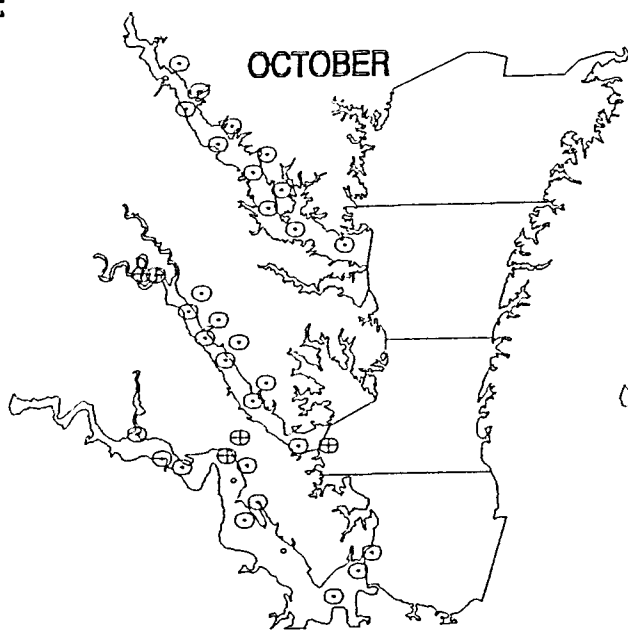
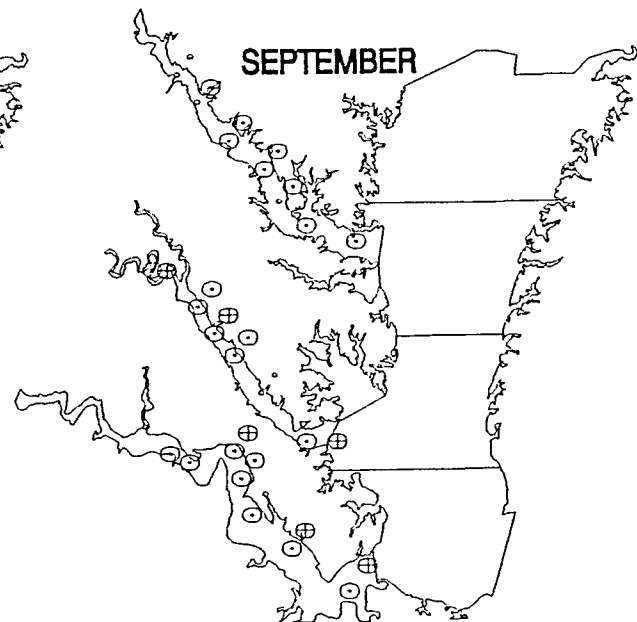
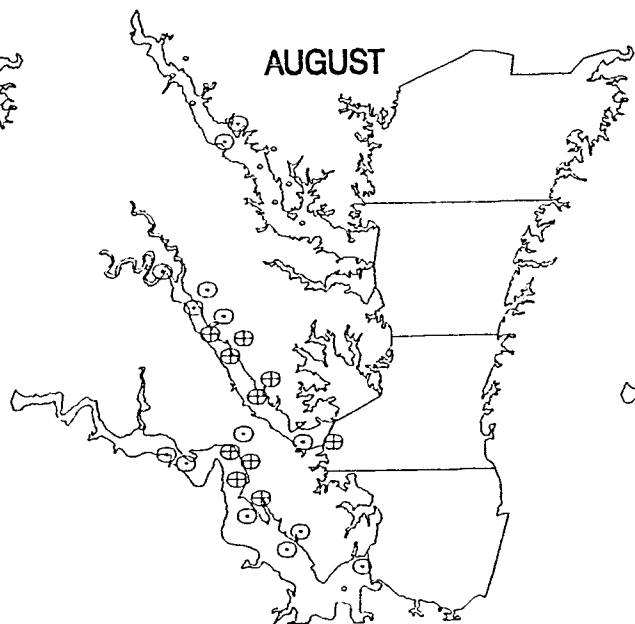
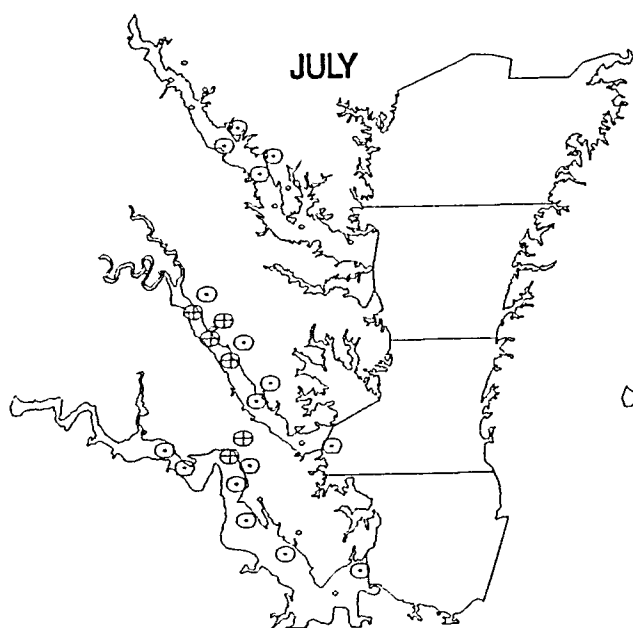
NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

⊕ = 10 to 99

⊕ = 100 to 999

● = ≥ 1,000



NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

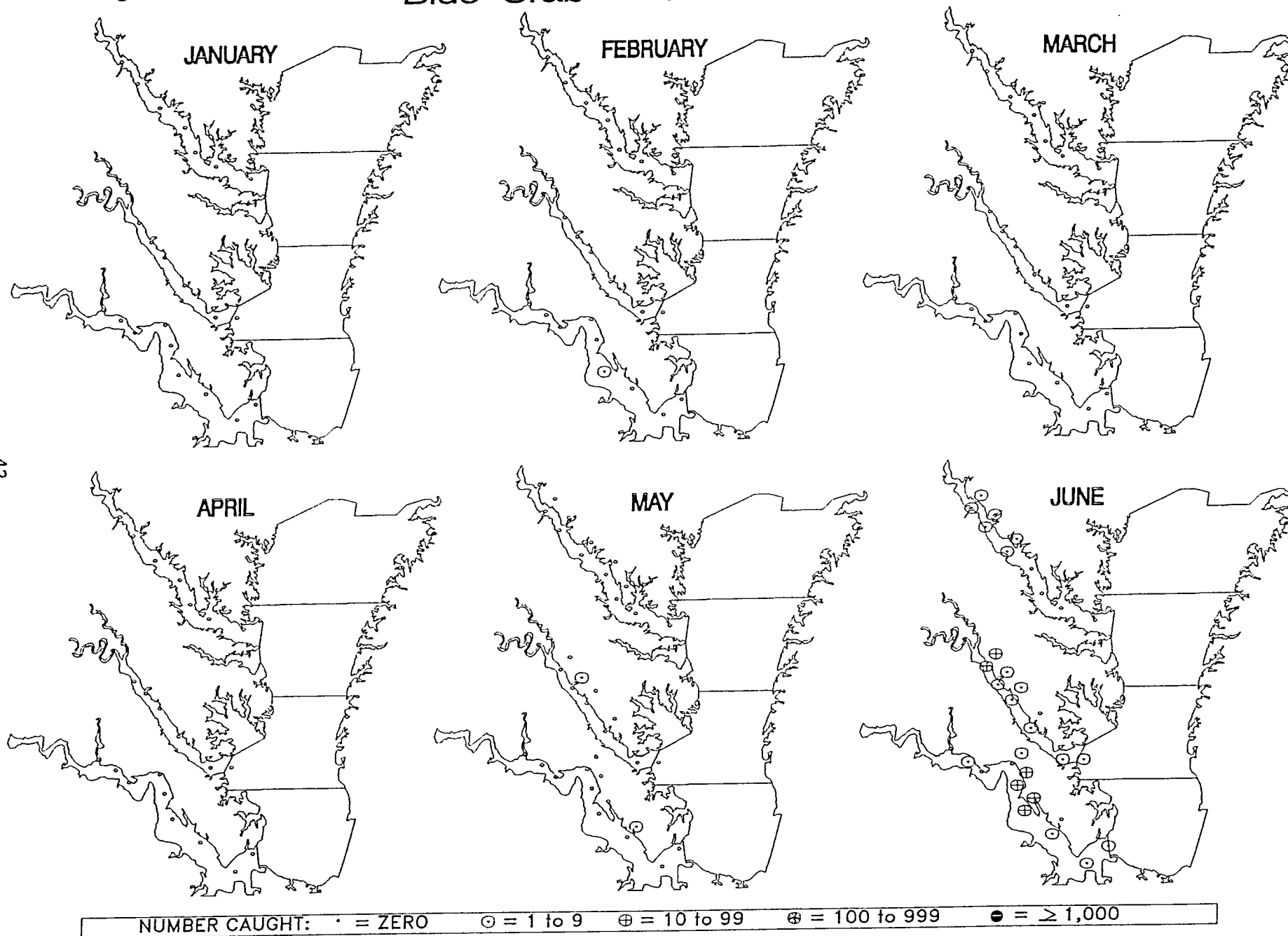
⊕ = 10 to 99

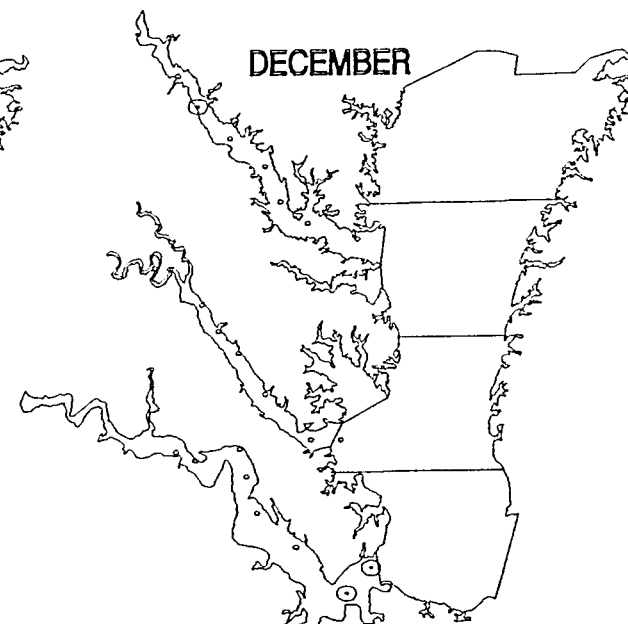
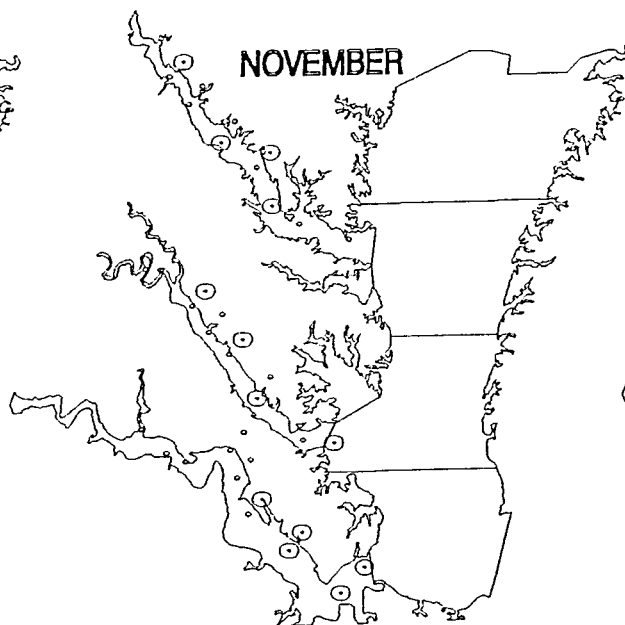
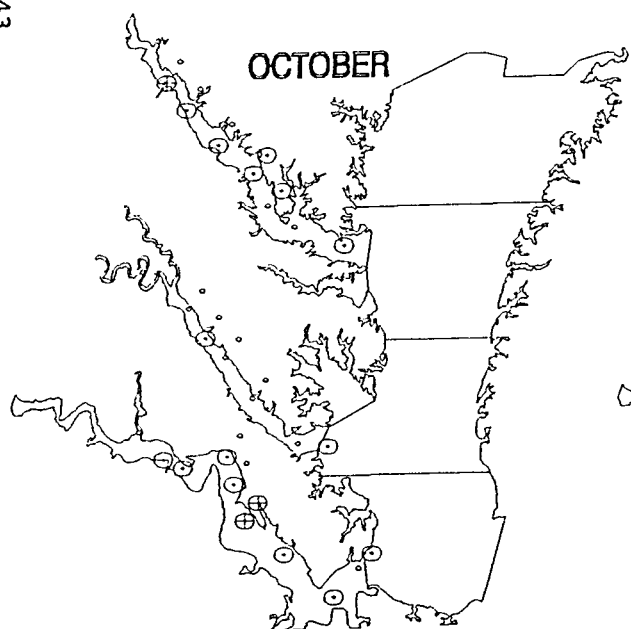
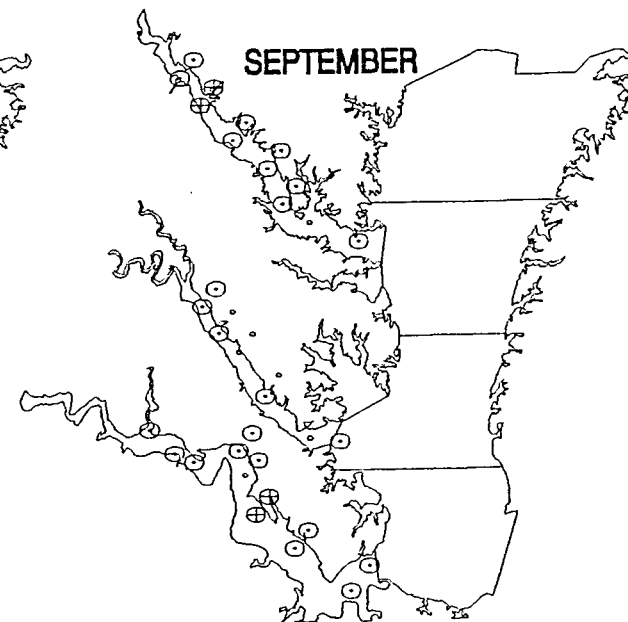
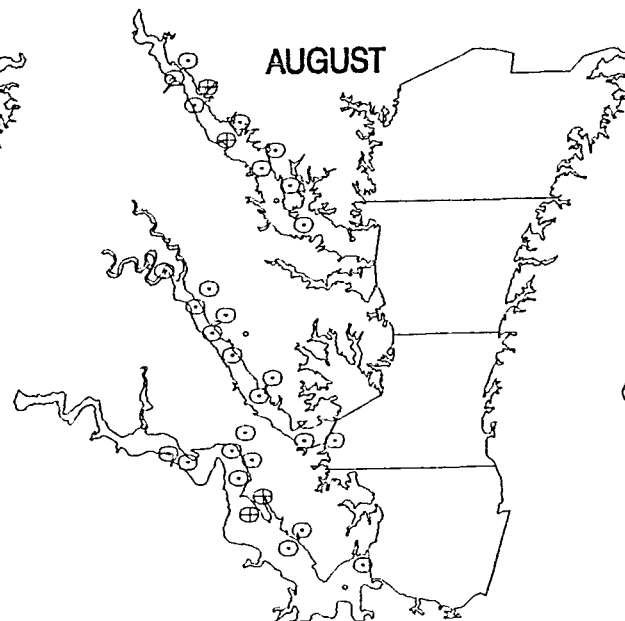
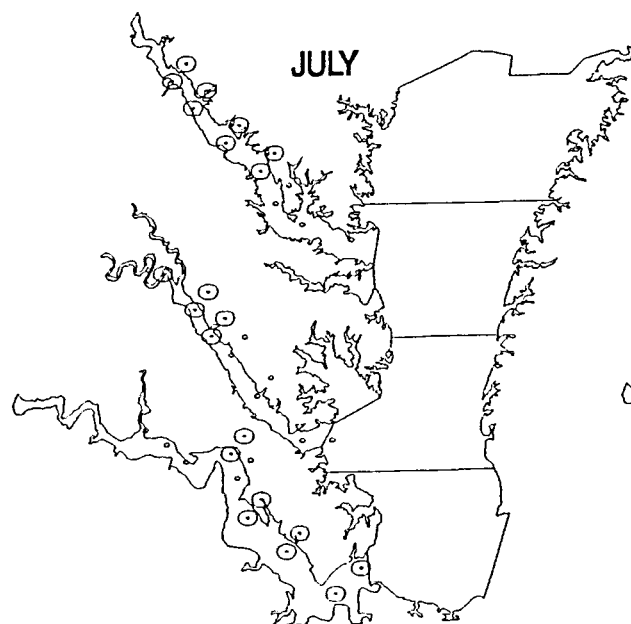
⊕ = 100 to 999

● = ≥ 1,000

Figure 24

Blue Crab — Adult Female

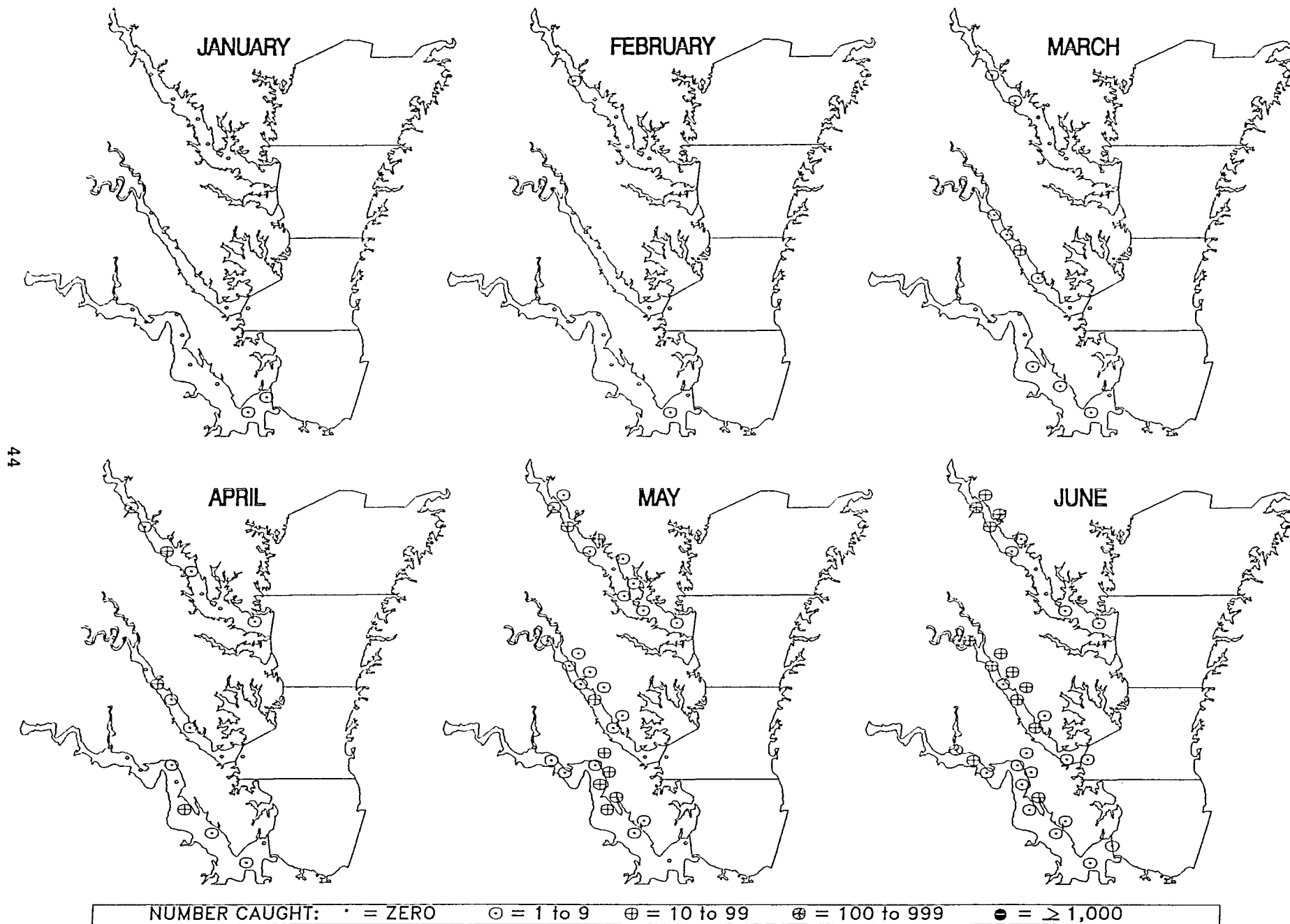


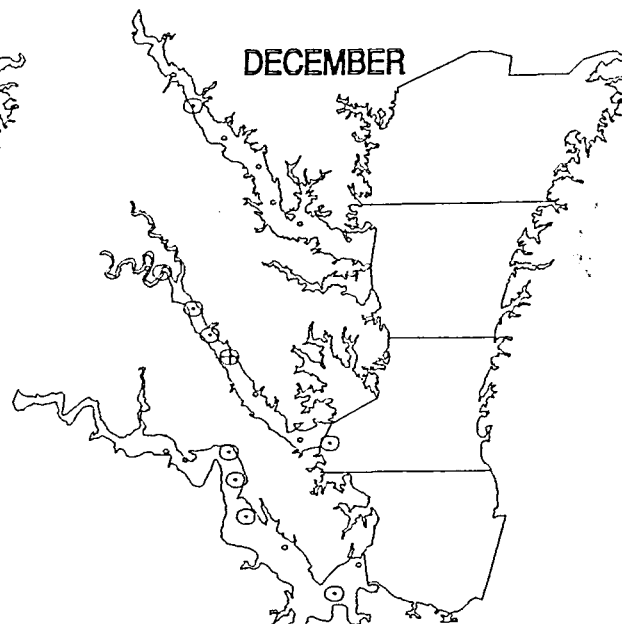
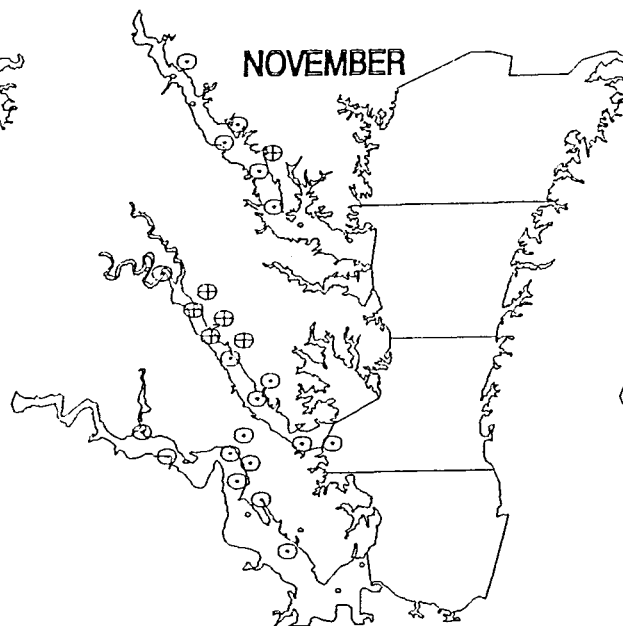
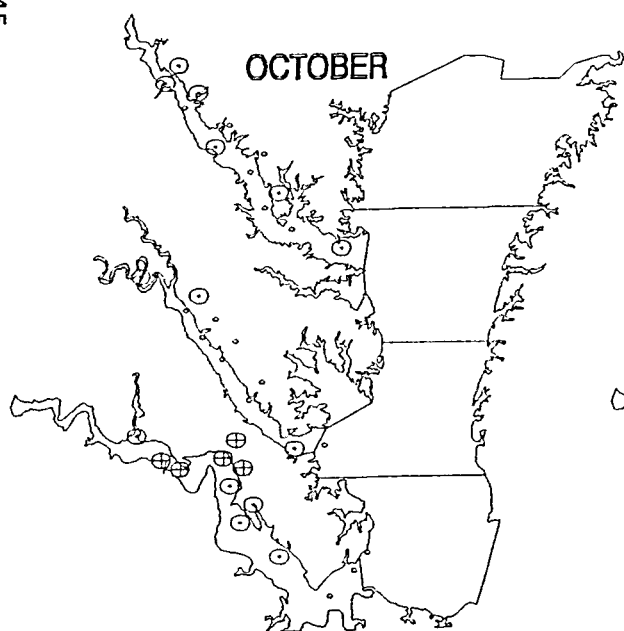
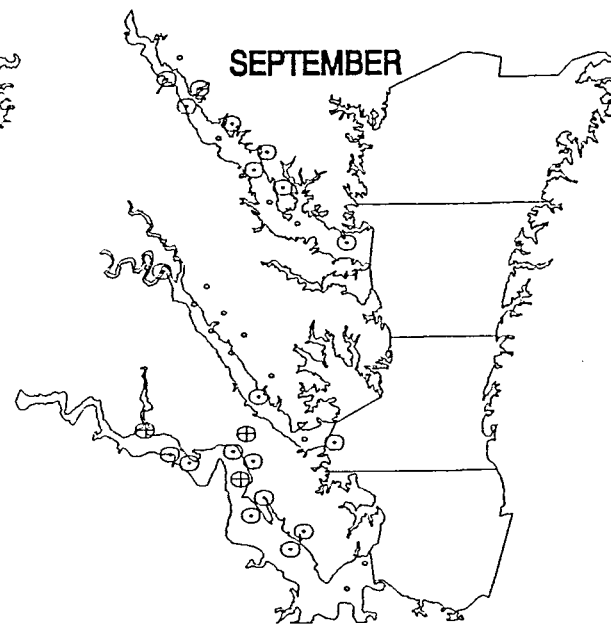
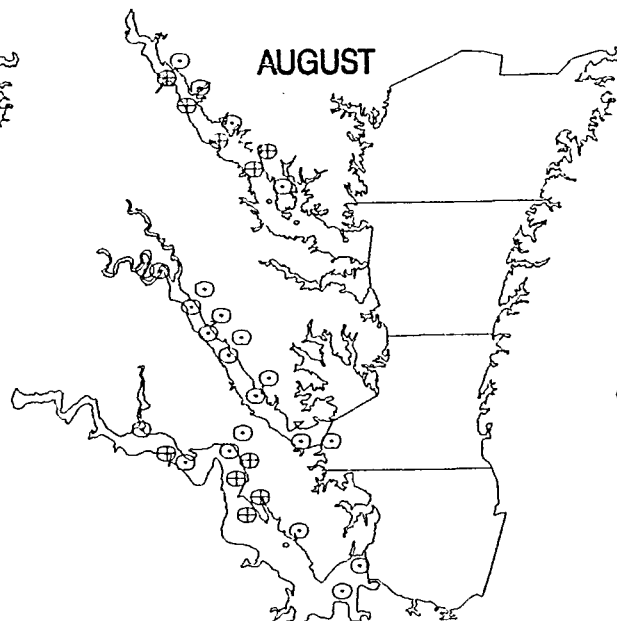
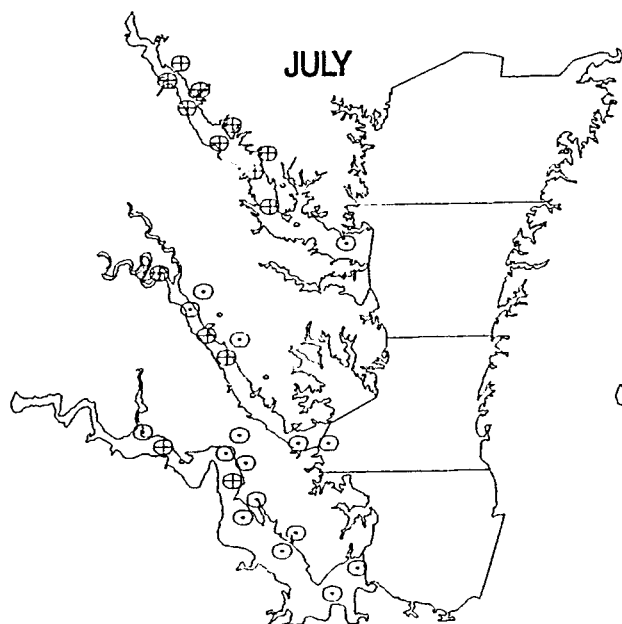


NUMBER CAUGHT: \cdot = ZERO \odot = 1 to 9 \oplus = 10 to 99 \oplus = 100 to 999 \bullet = $\geq 1,000$

Figure 25

Blue Crab – Juvenile Female





NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

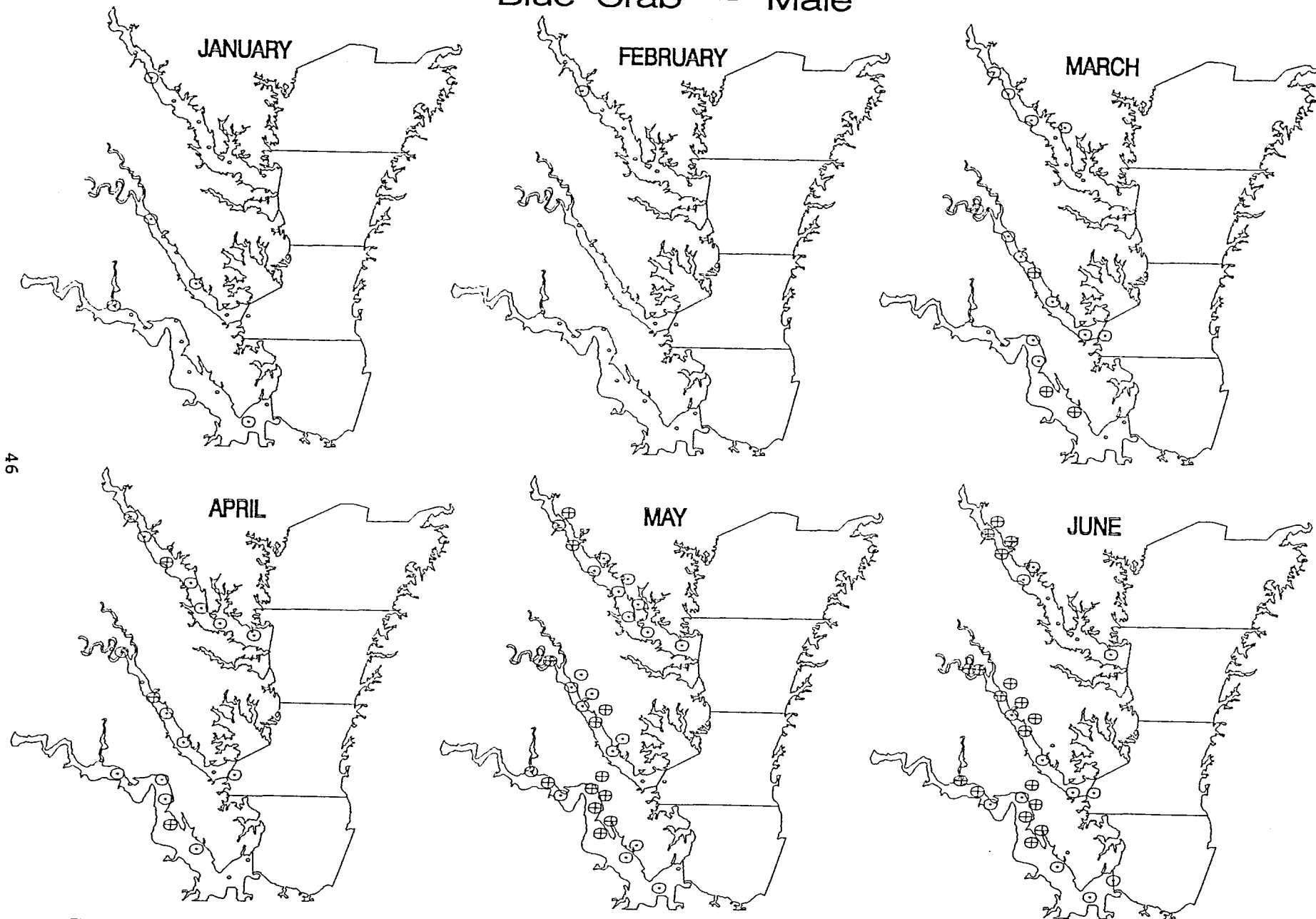
⊕ = 10 to 99

⊗ = 100 to 999

● = ≥ 1,000

Figure 26

Blue Crab — Male



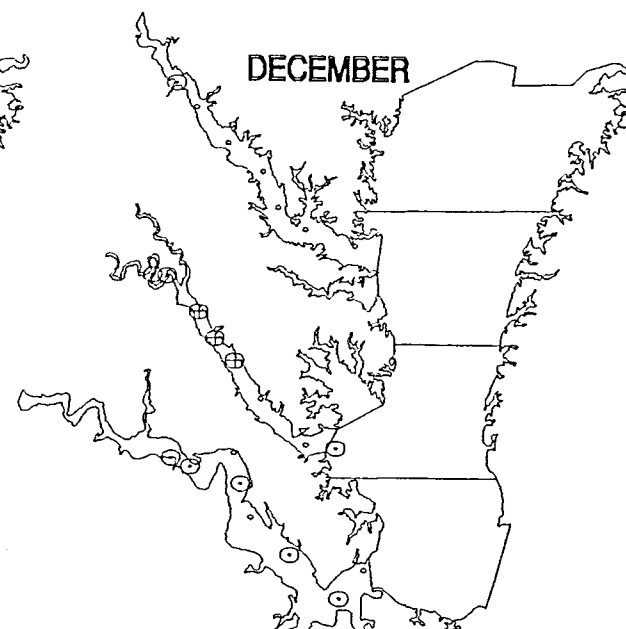
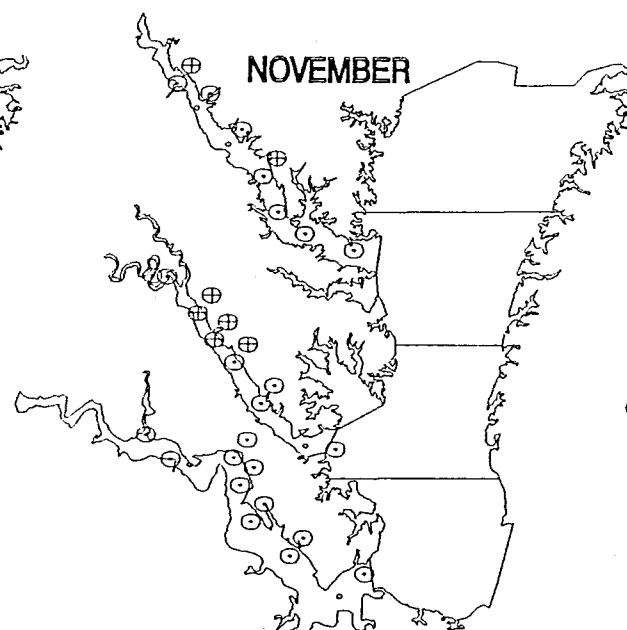
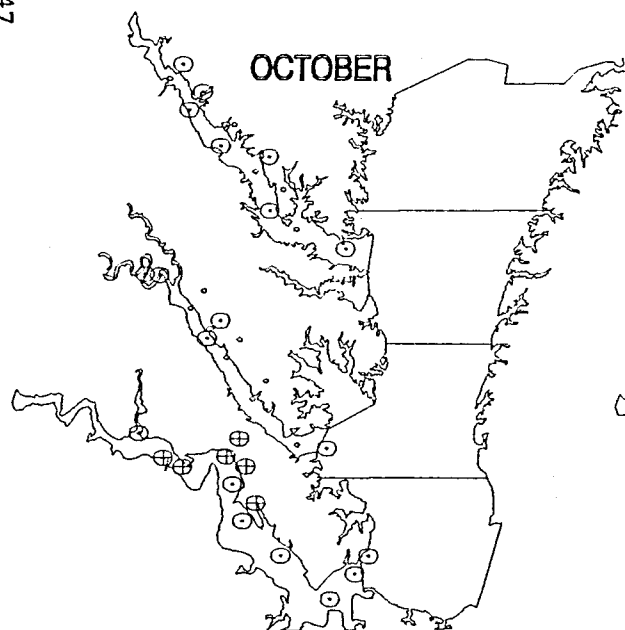
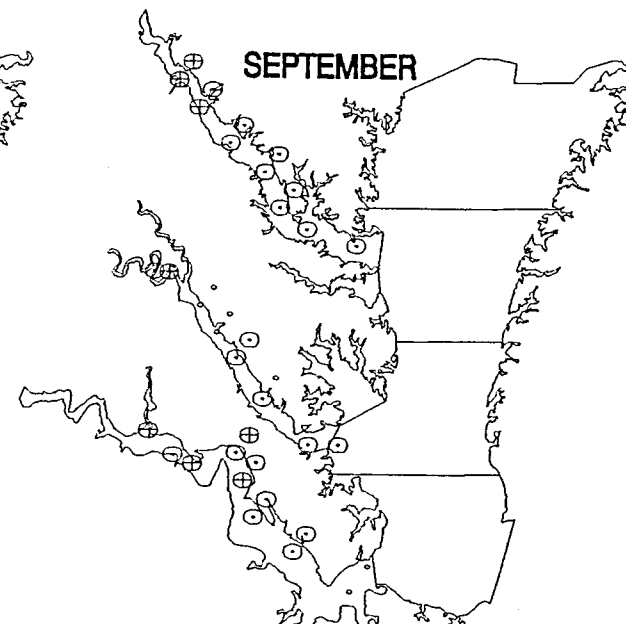
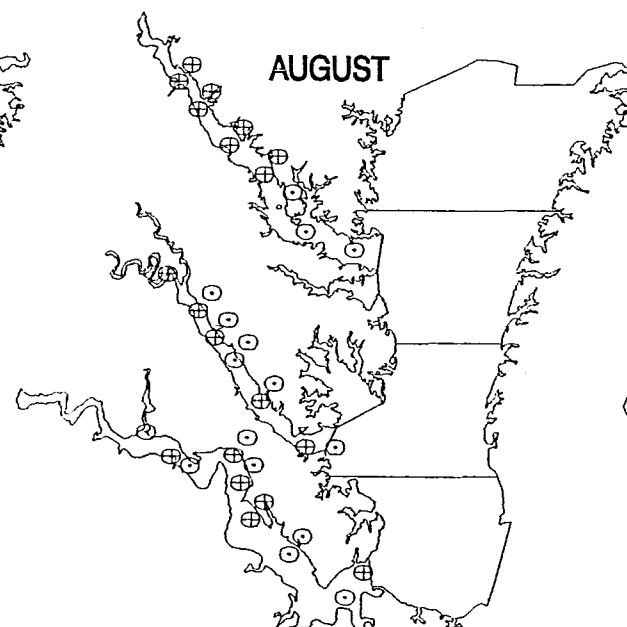
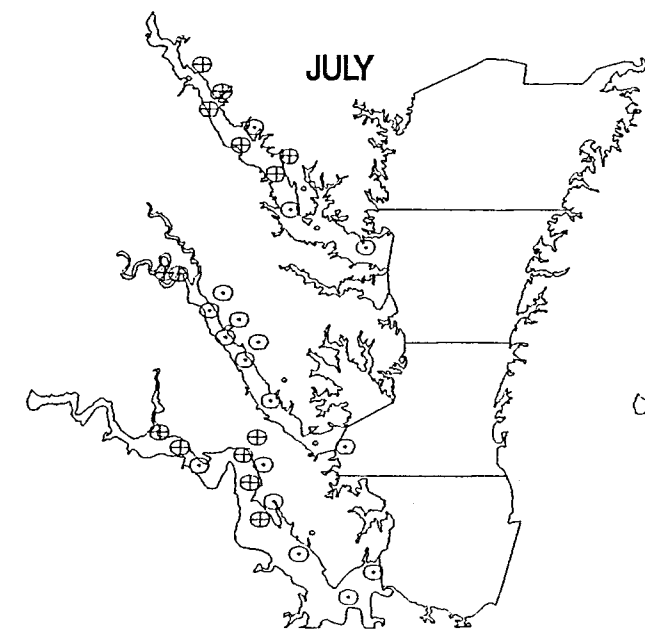
NUMBER CAUGHT: • = ZERO

⊙ = 1 to 9

⊕ = 10 to 99

⊕• = 100 to 999

● = ≥ 1,000



NUMBER CAUGHT: · = ZERO

○ = 1 to 9

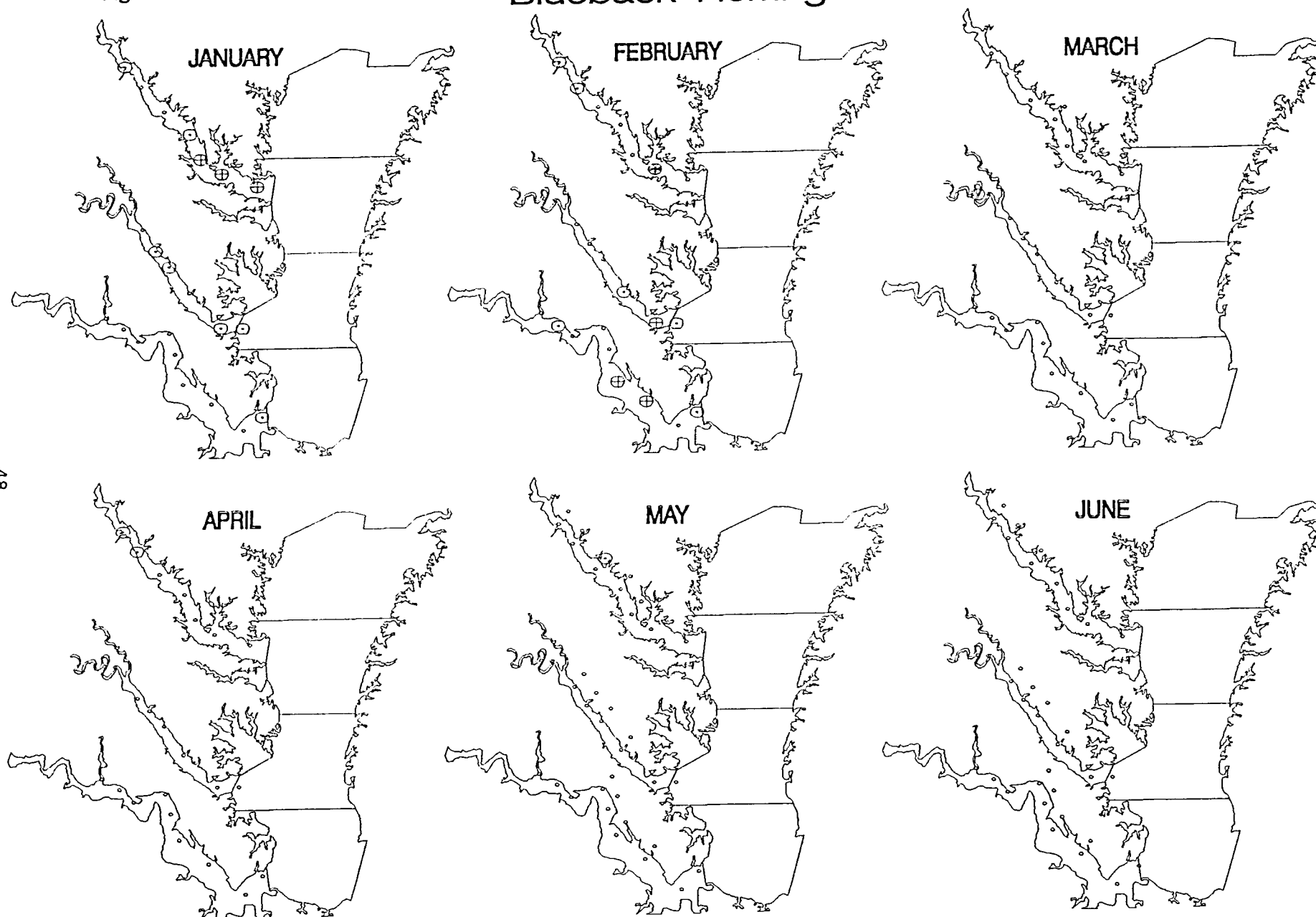
⊕ = 10 to 99

⊗ = 100 to 999

● = ≥ 1,000

Figure 27

Blueback Herring



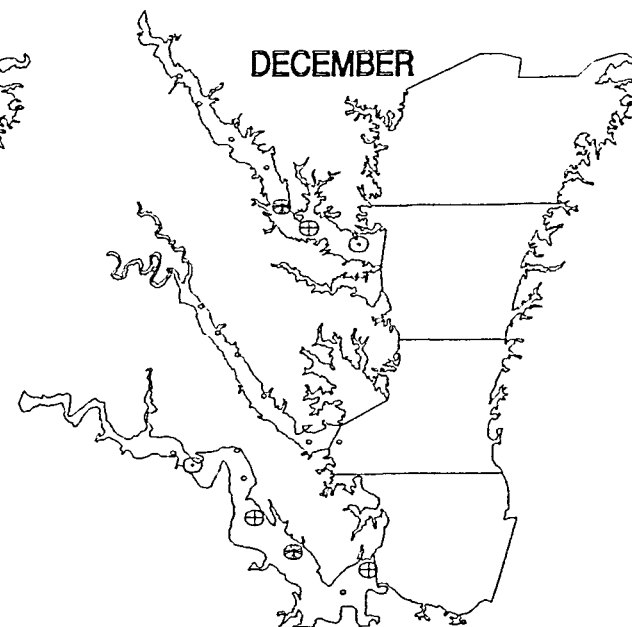
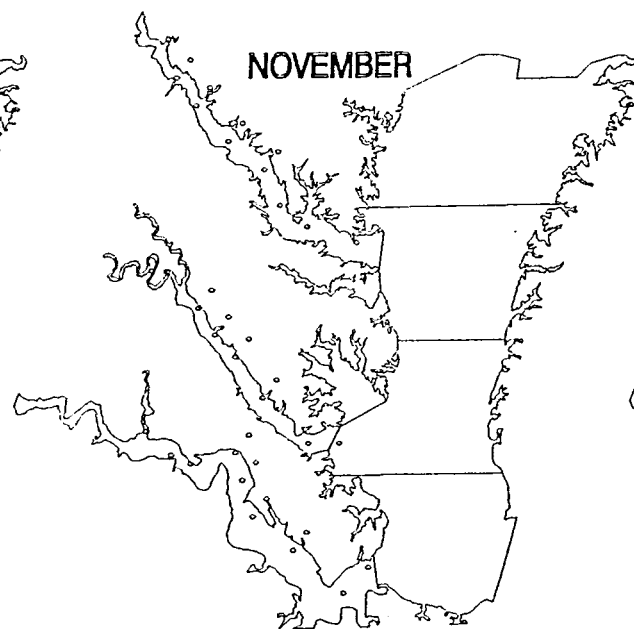
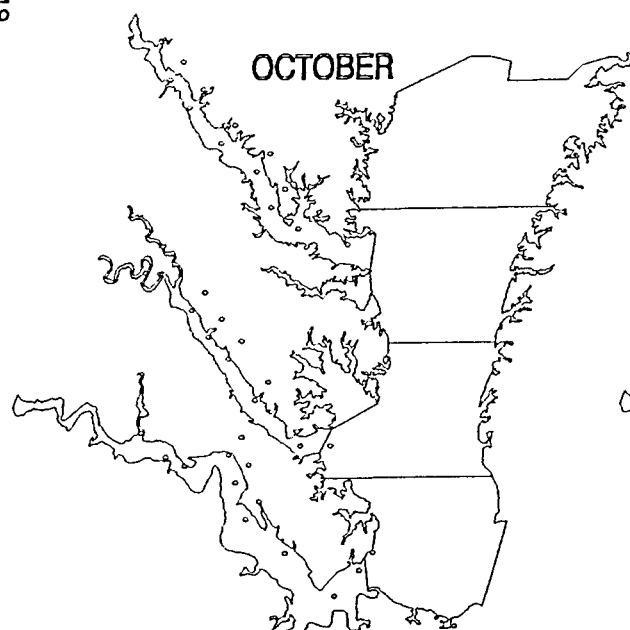
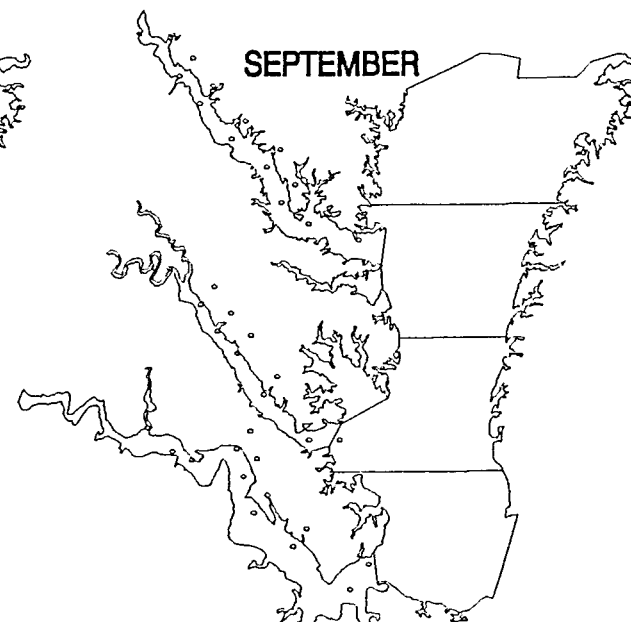
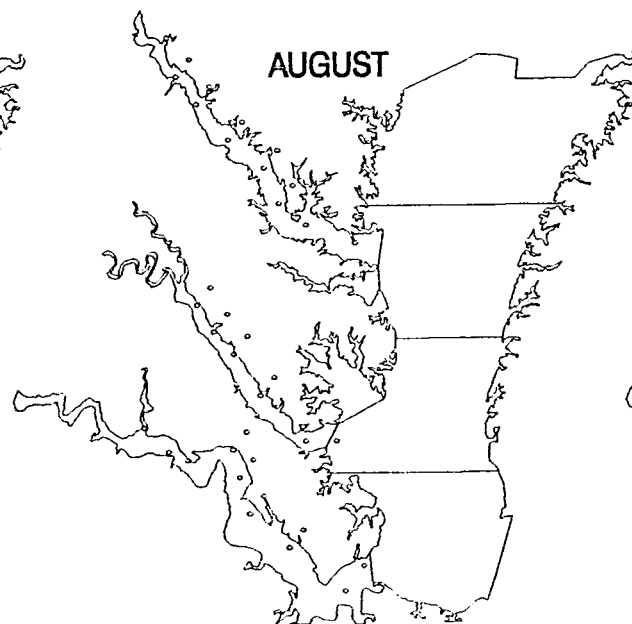
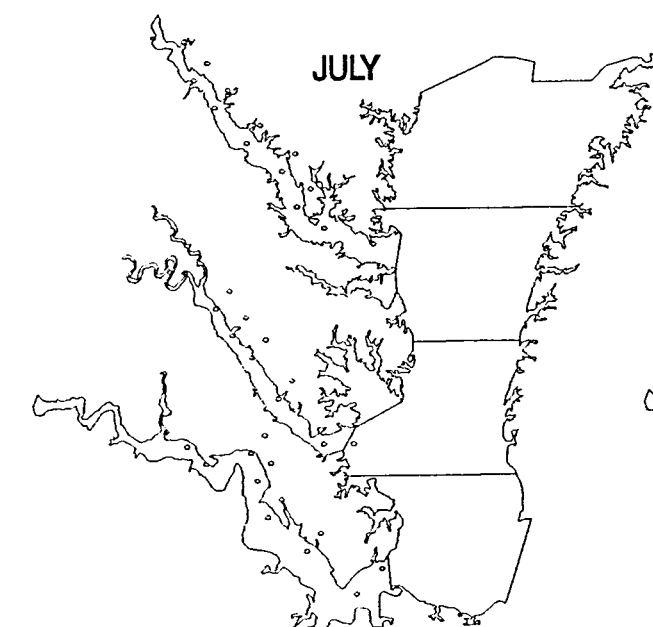
NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

⊕ = 10 to 99

⊗ = 100 to 999

● = ≥ 1,000



NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

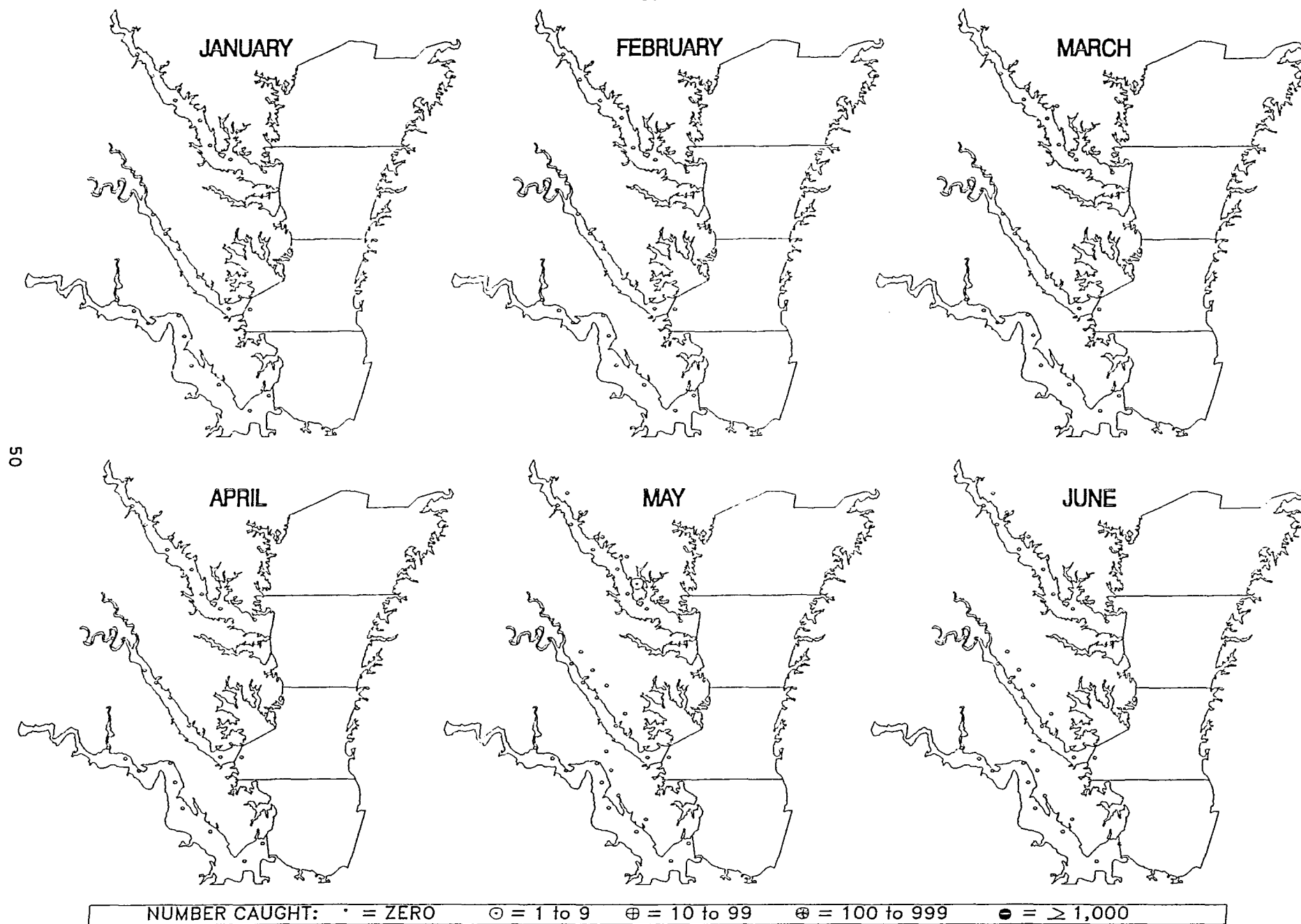
⊕ = 10 to 99

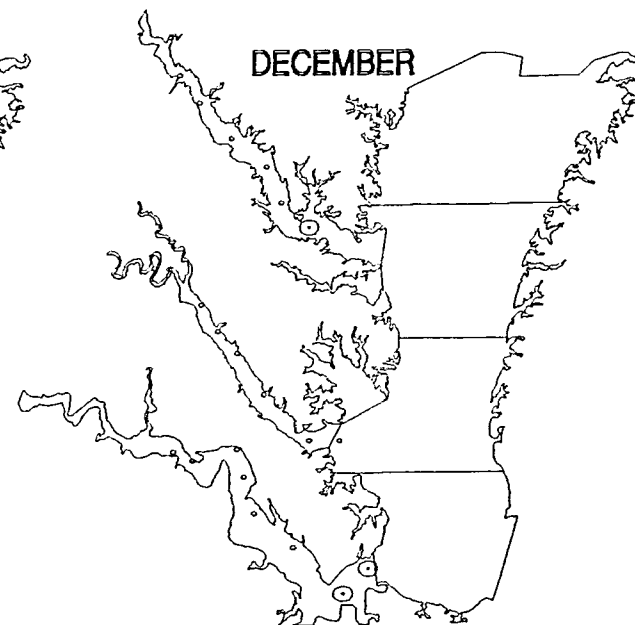
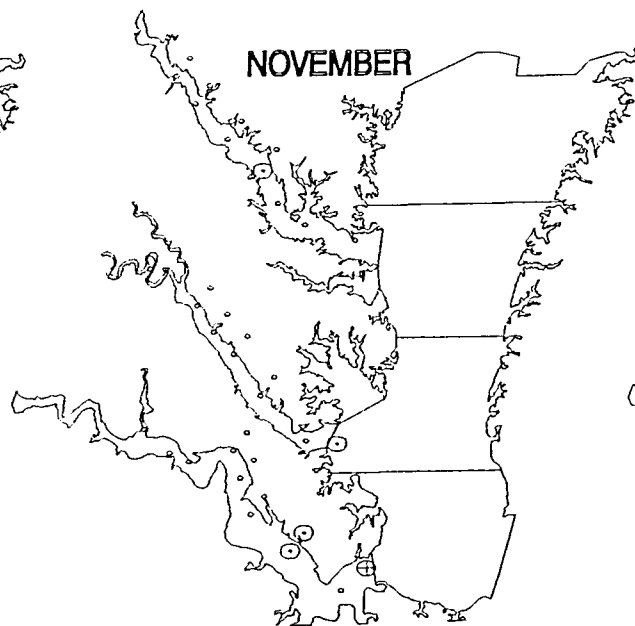
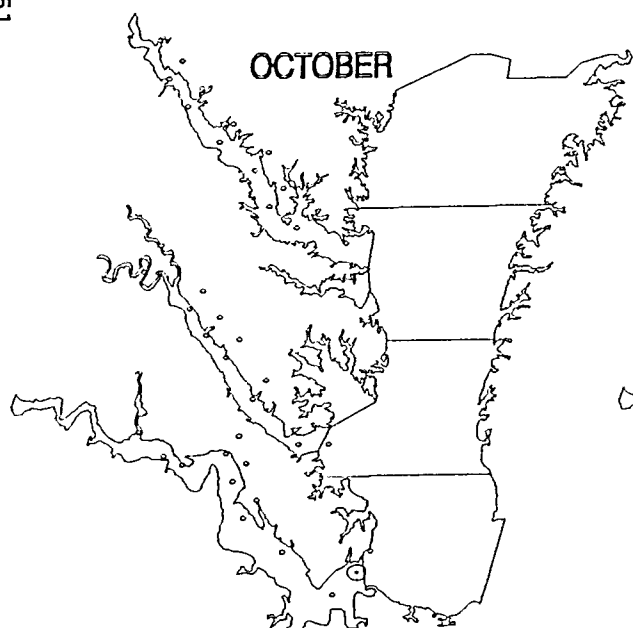
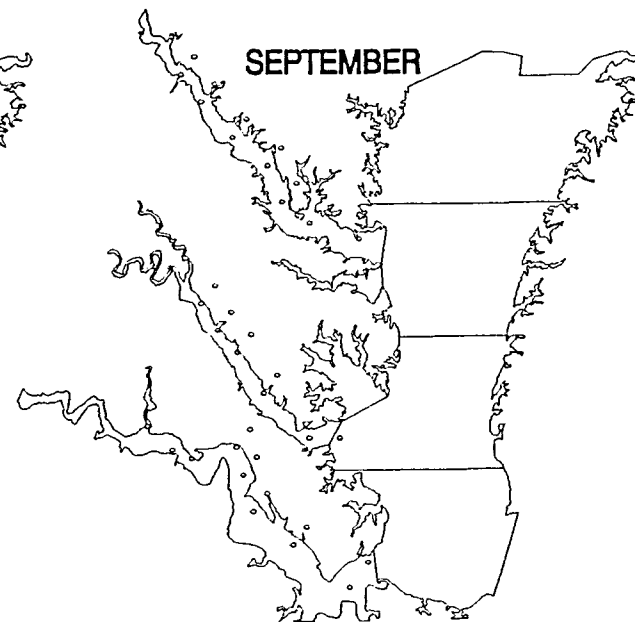
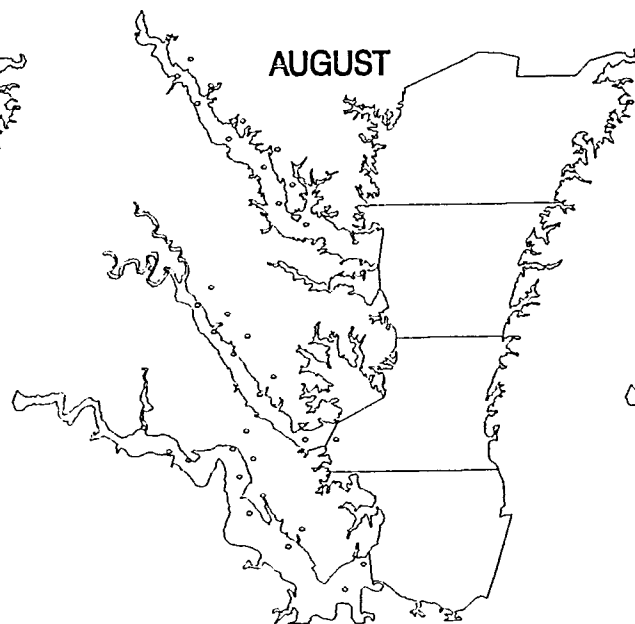
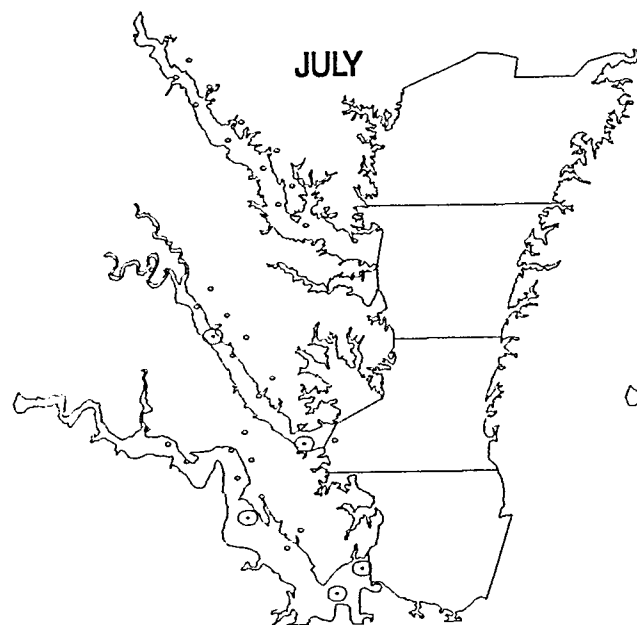
⊕ = 100 to 999

● = ≥ 1,000

Figure 28

Butterfish





NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

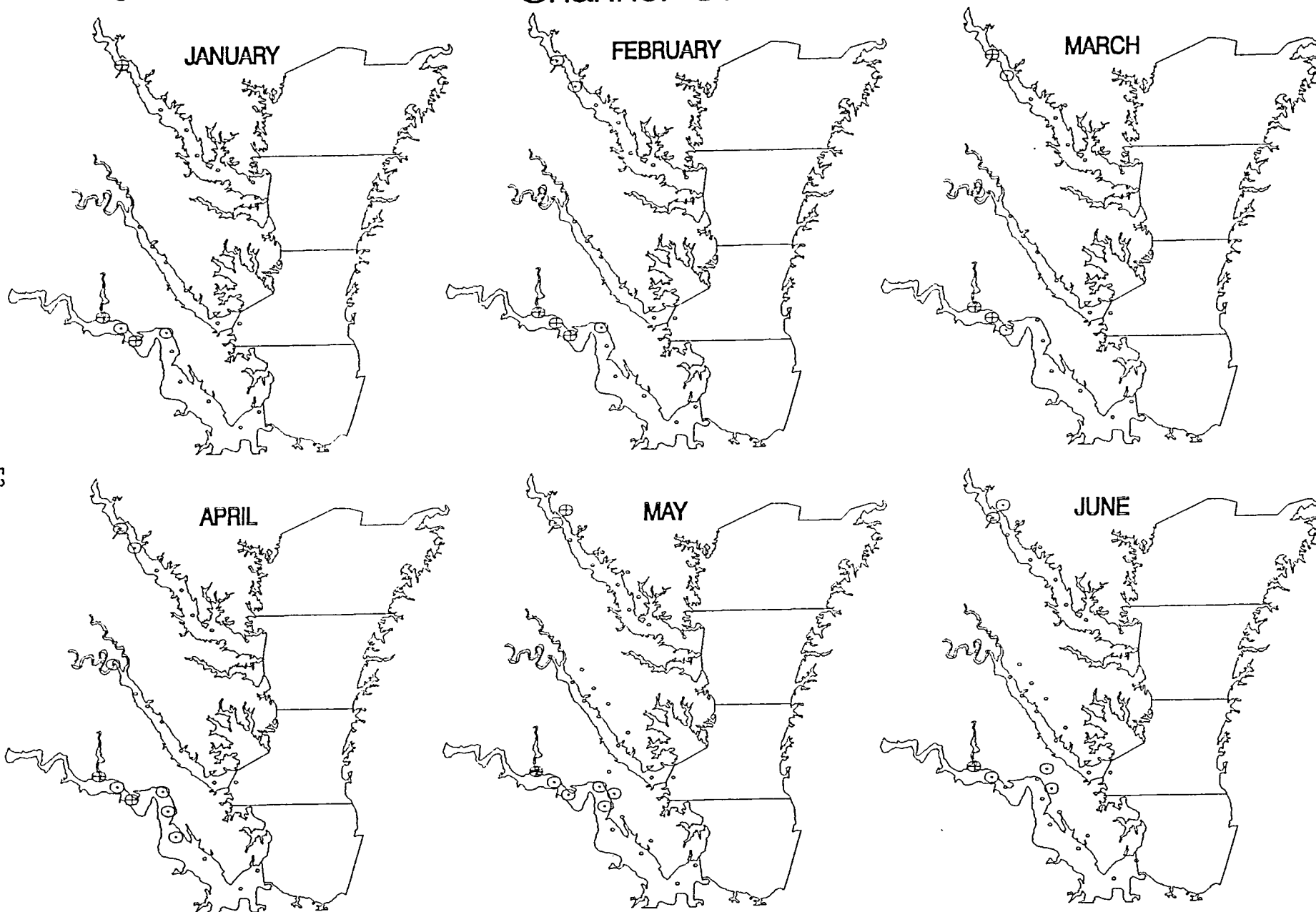
⊕ = 10 to 99

⊕ = 100 to 999

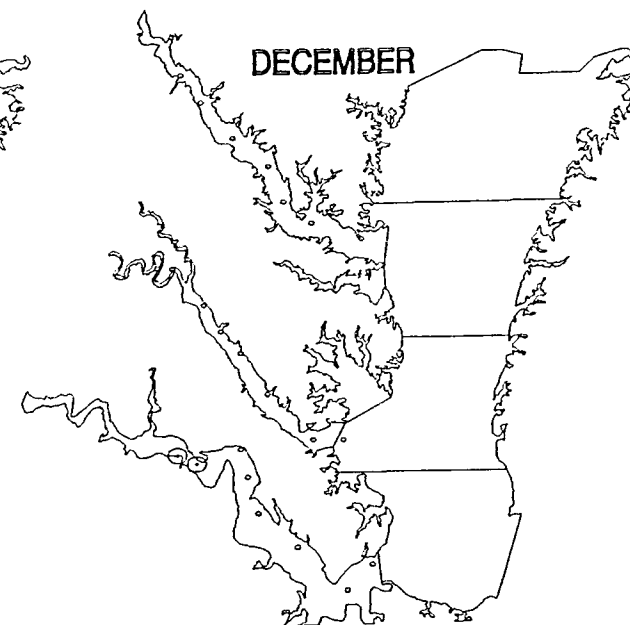
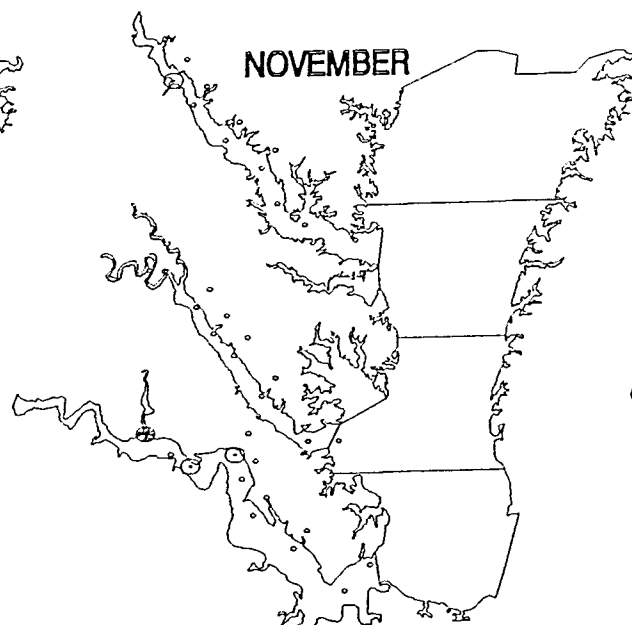
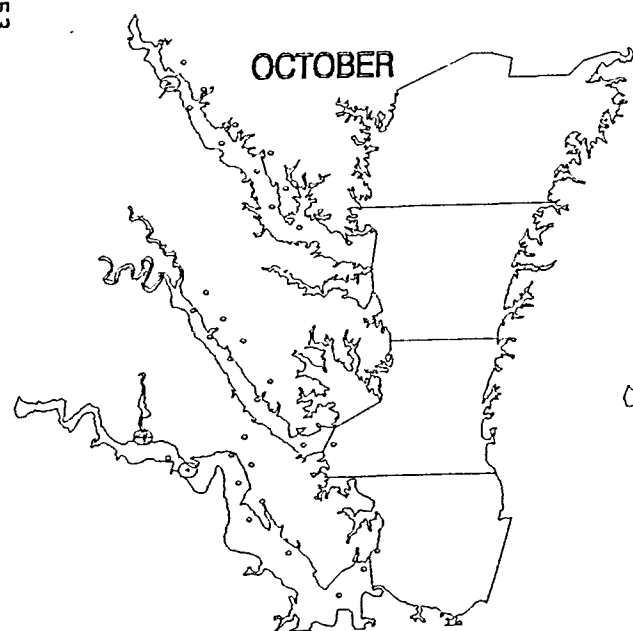
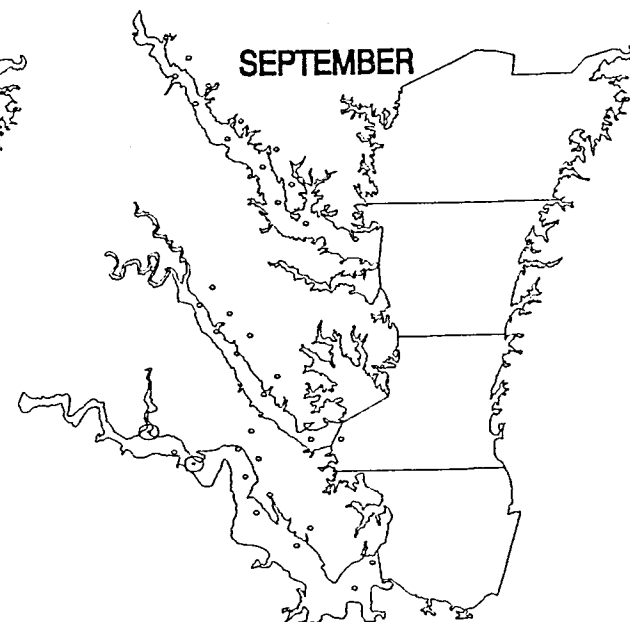
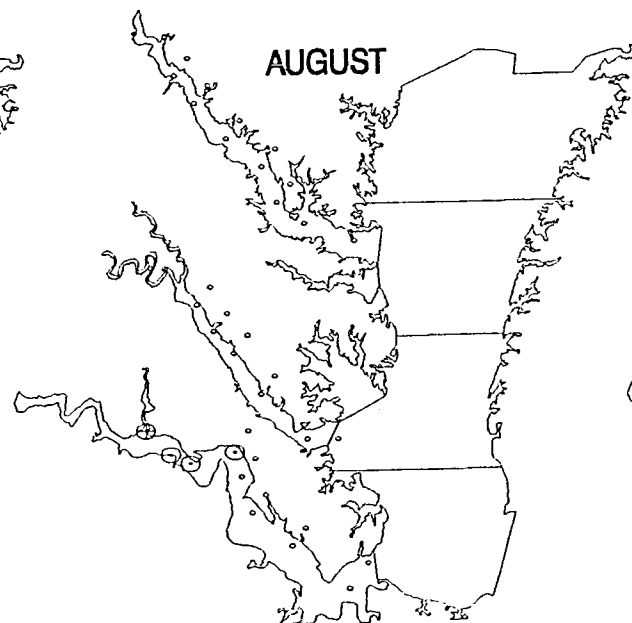
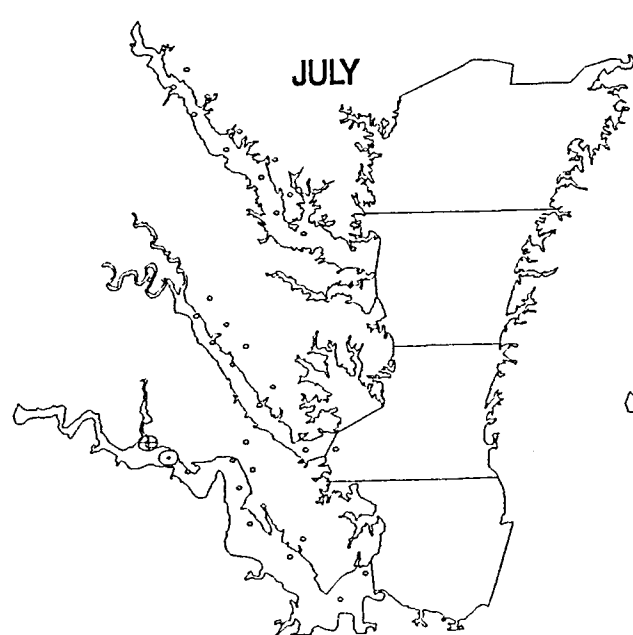
● = ≥ 1,000

Figure 29

Channel Catfish



NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊕ = 100 to 999 ● = ≥ 1,000



NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

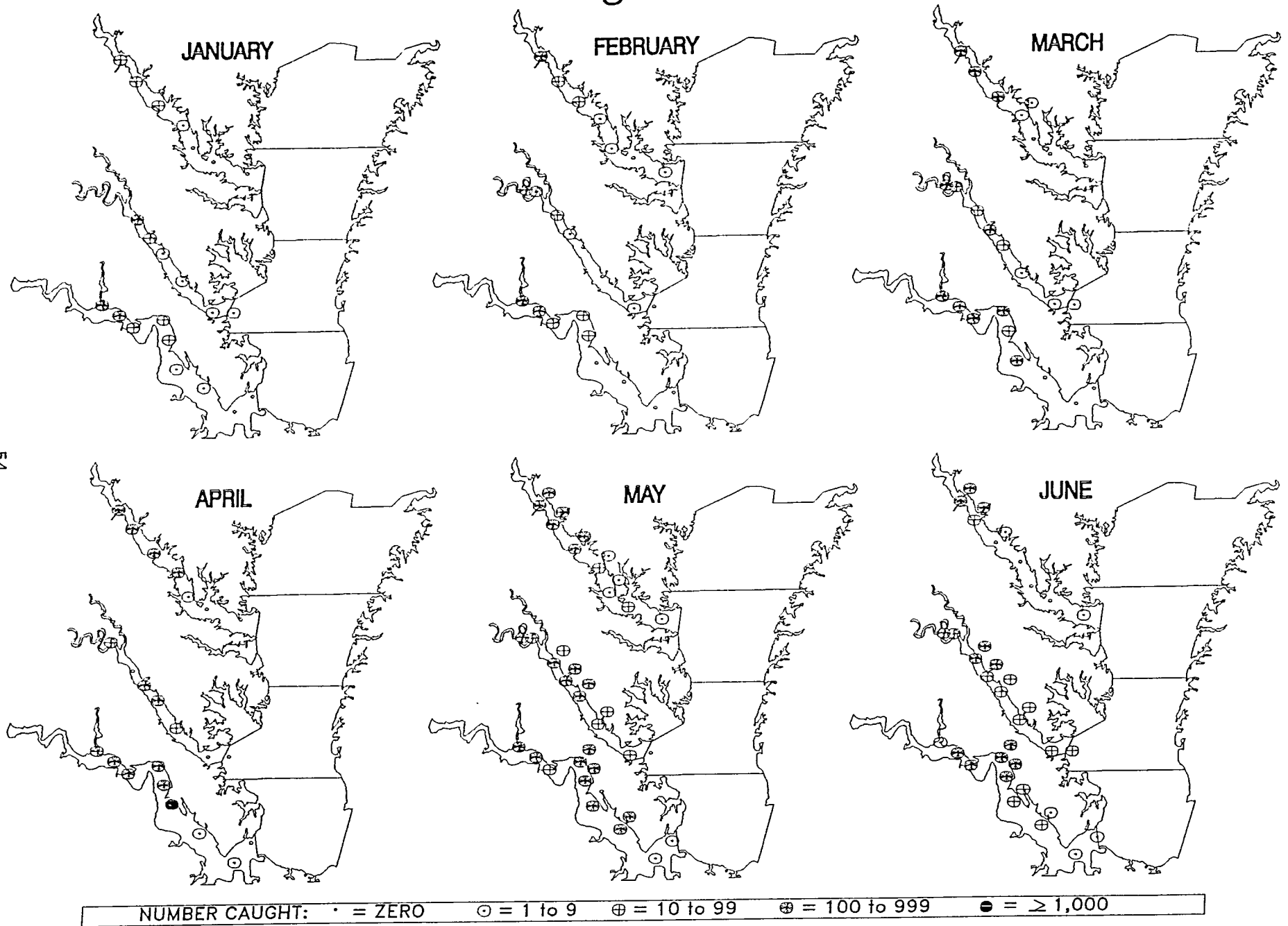
⊕ = 10 to 99

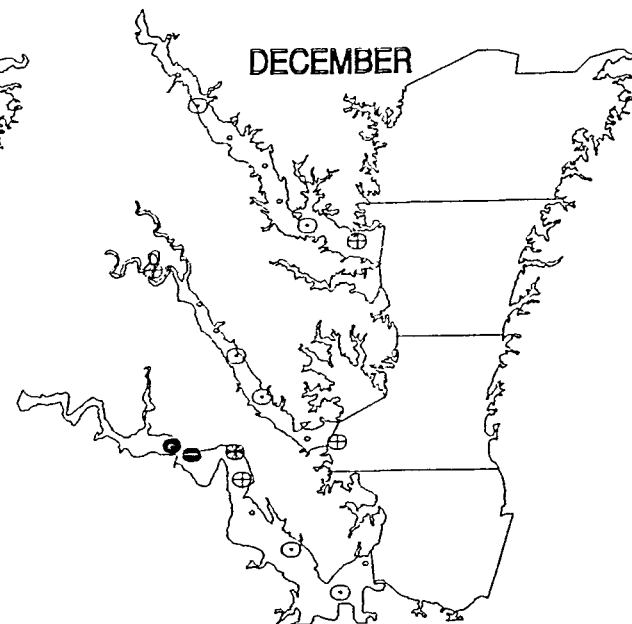
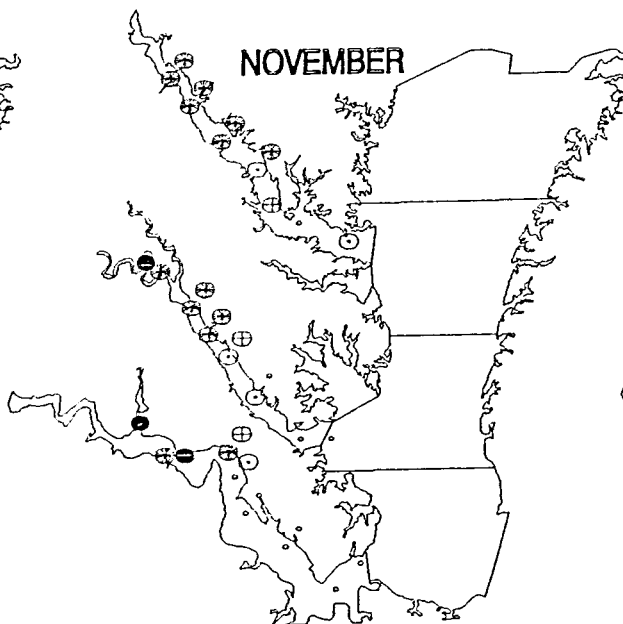
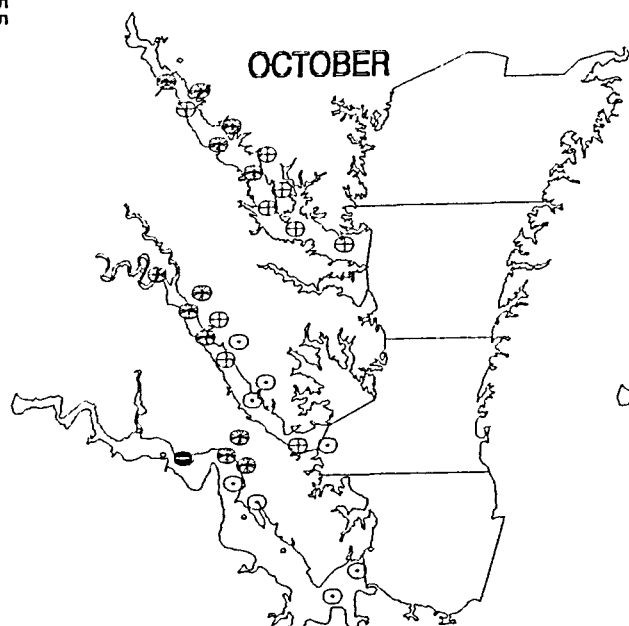
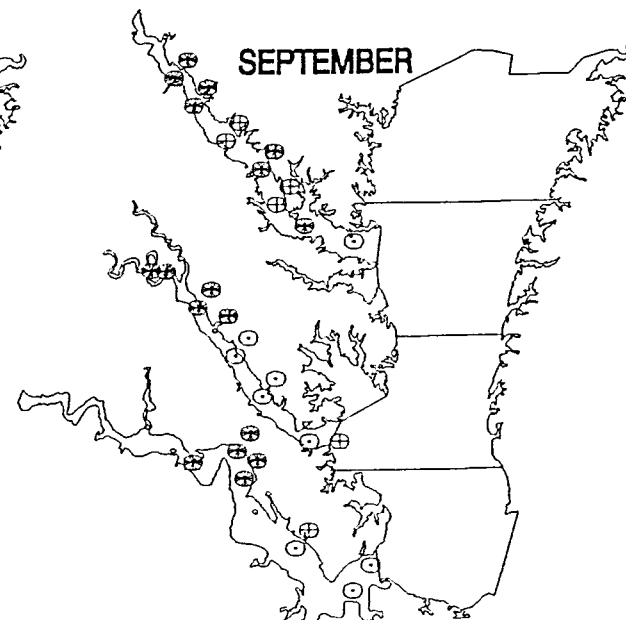
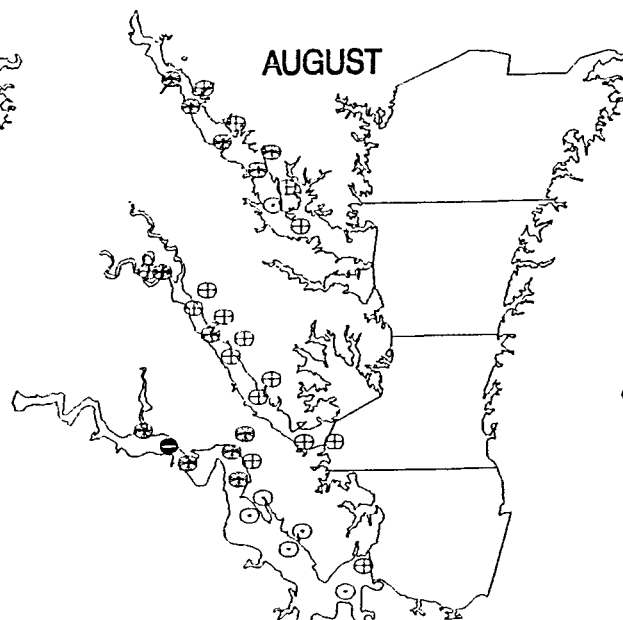
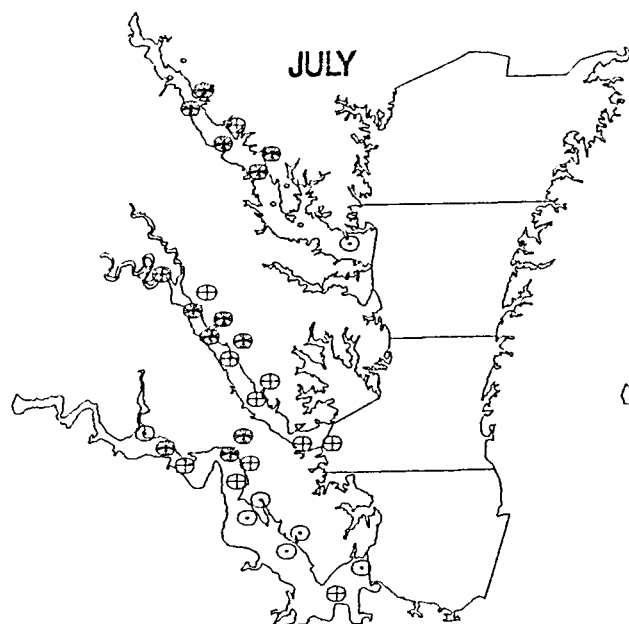
⊗ = 100 to 999

● = ≥ 1,000

Figure 30

Hogchoker

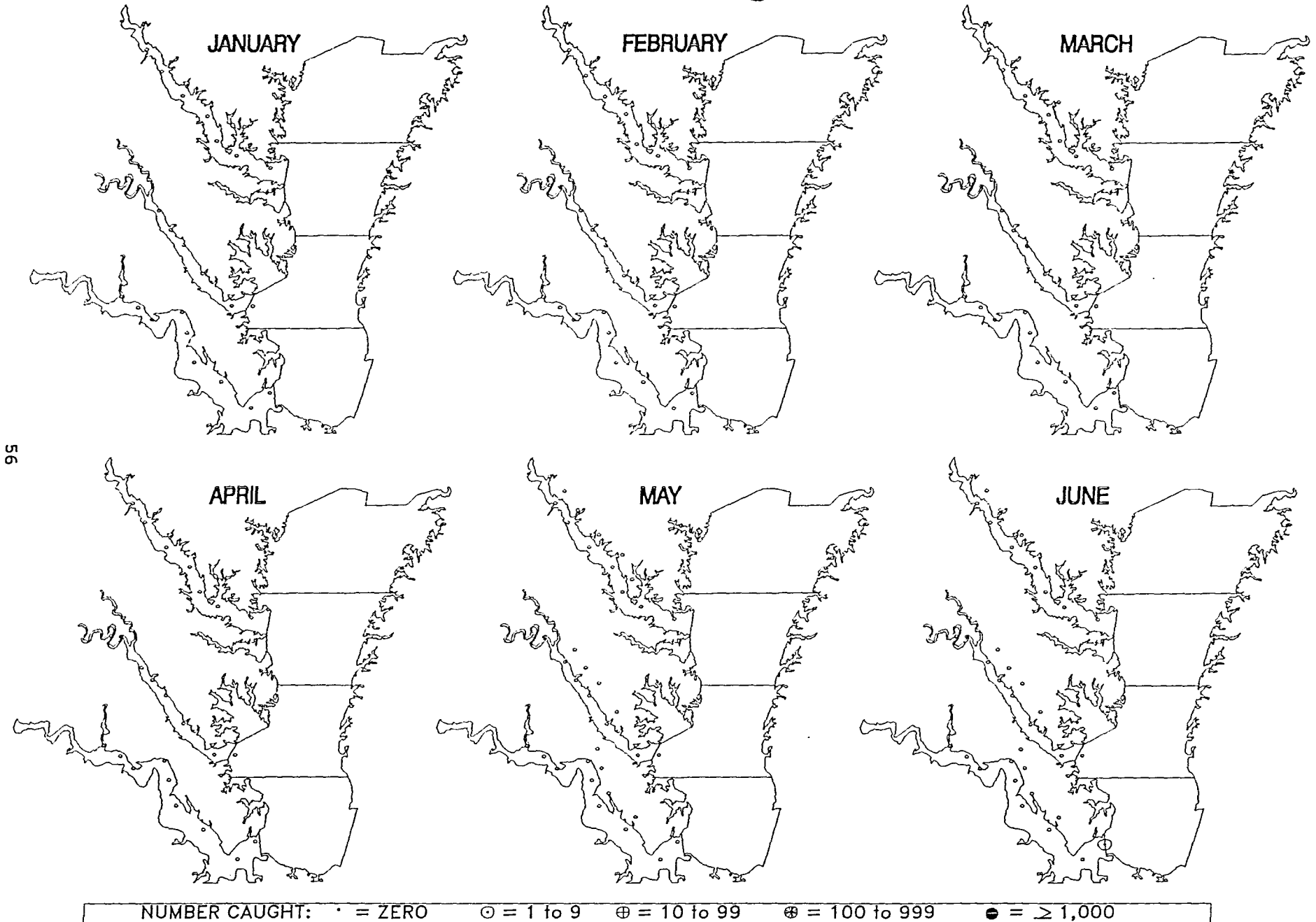




NUMBER CAUGHT: · = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 31

Northern Kingfish



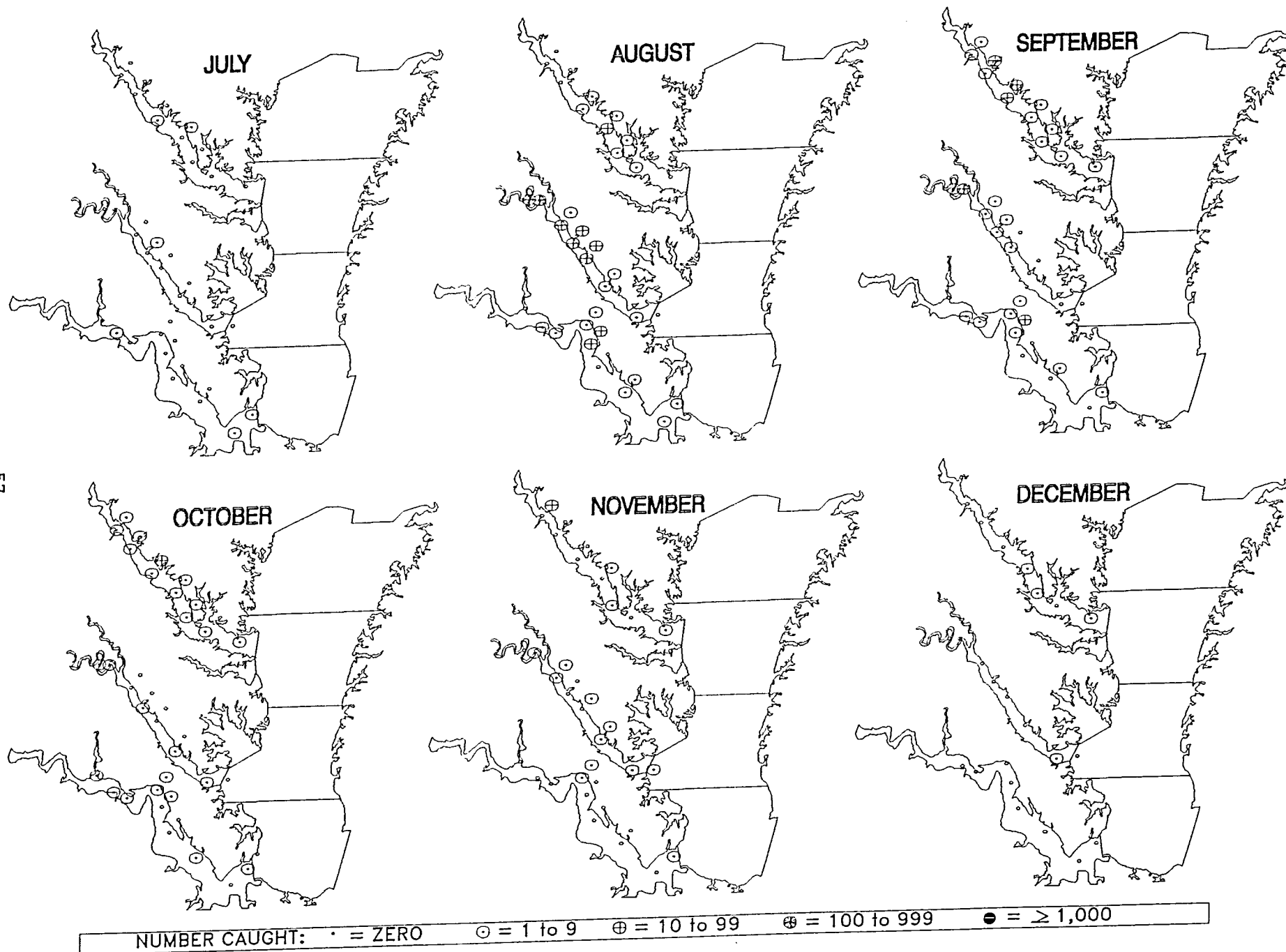
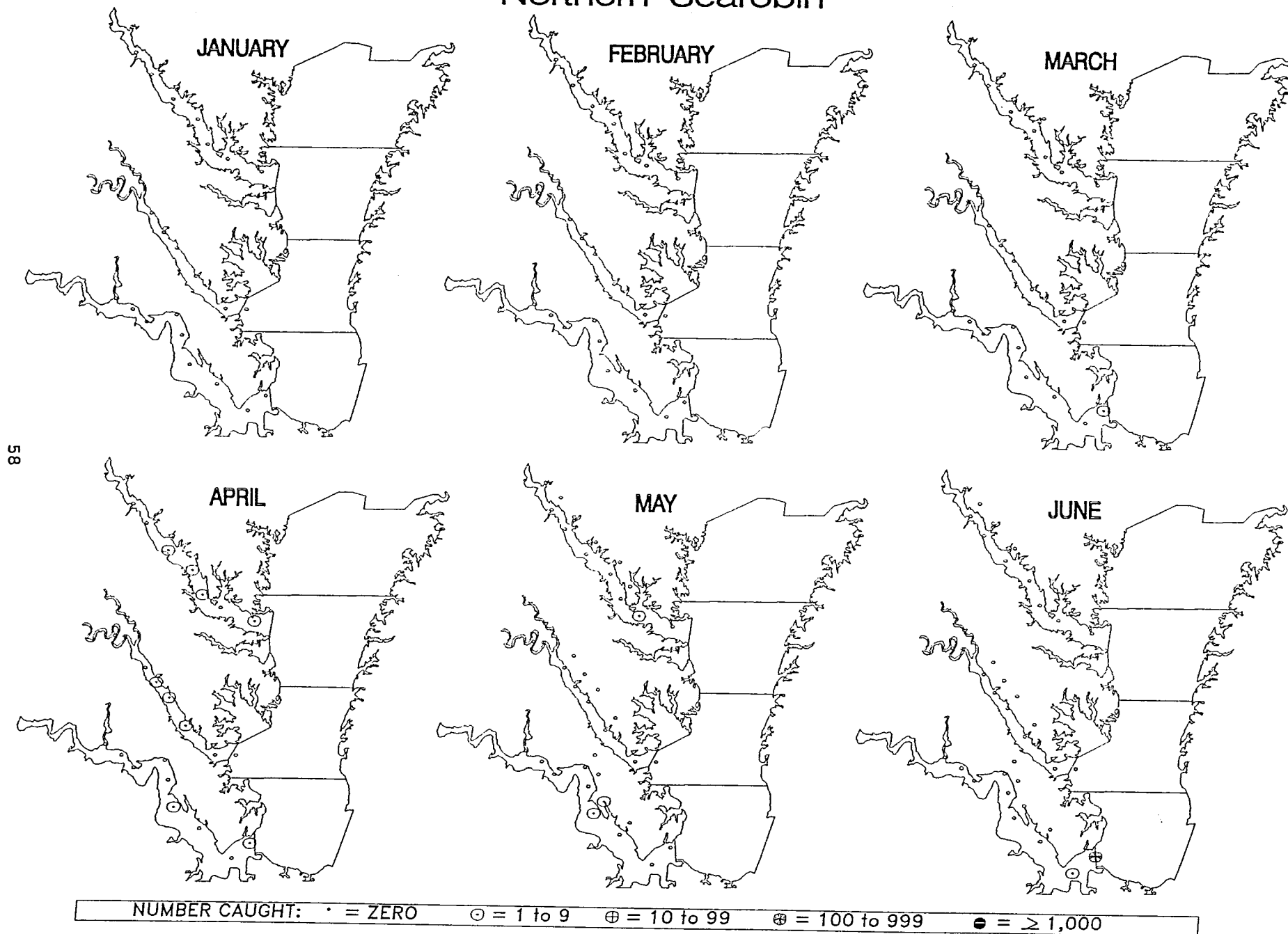
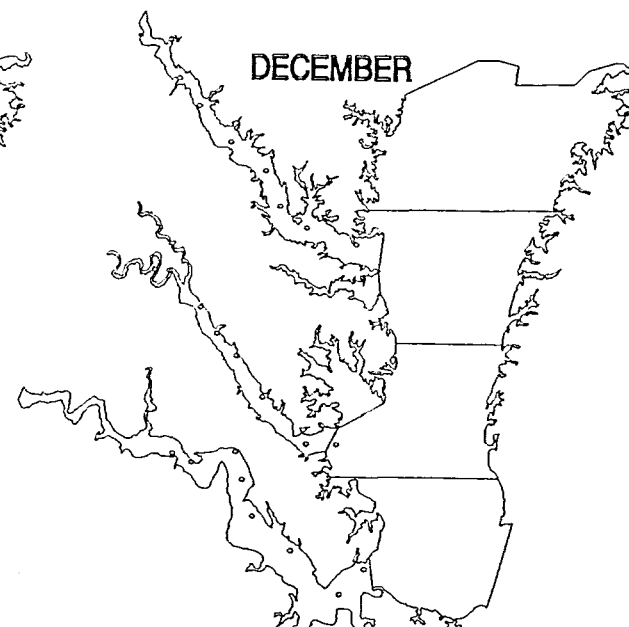
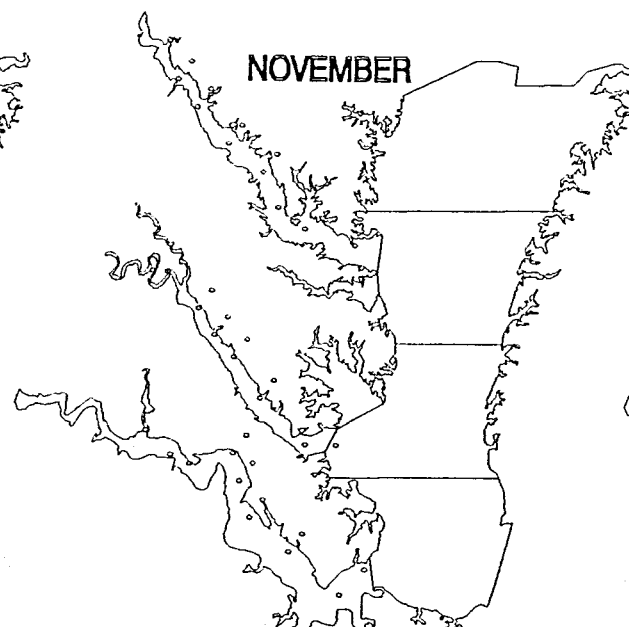
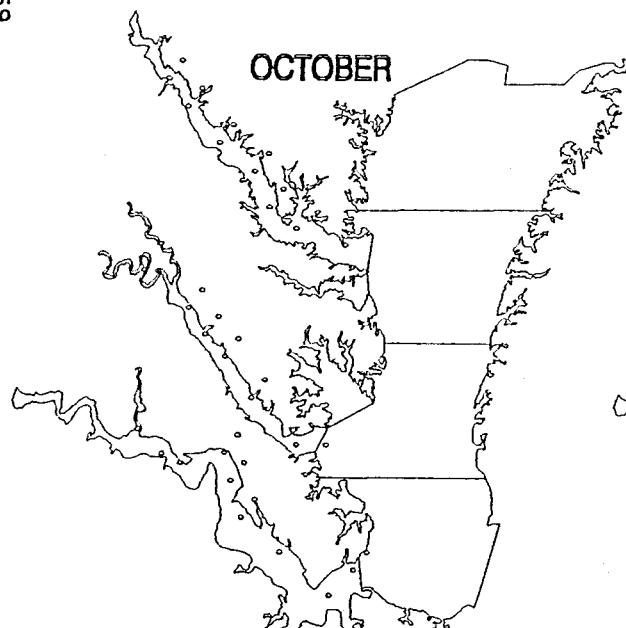
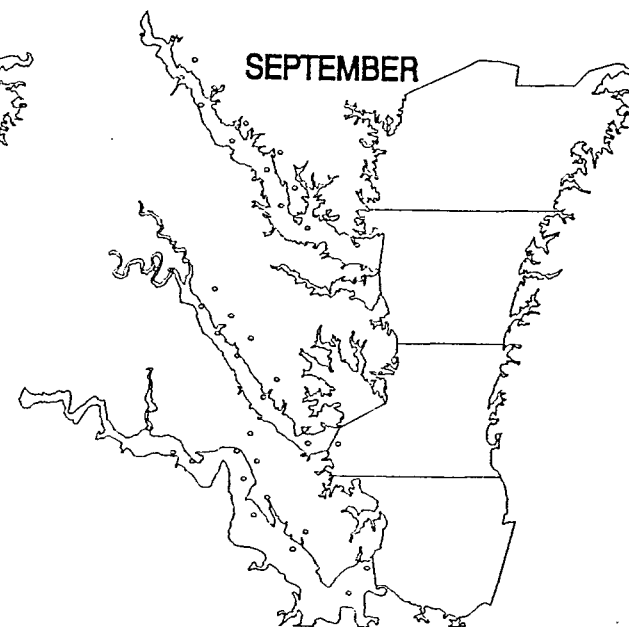
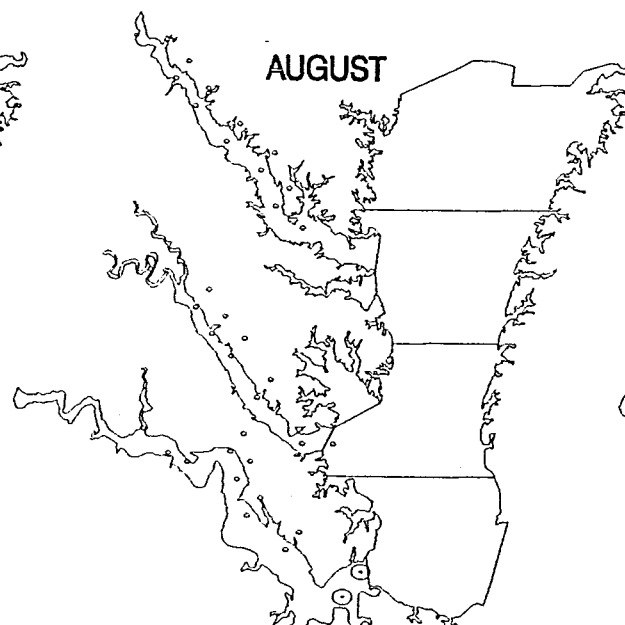
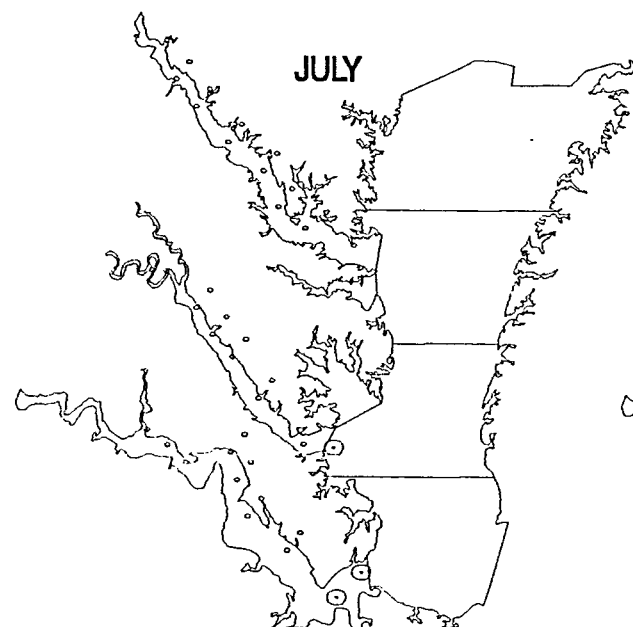


Figure 32

Northern Searobin





NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

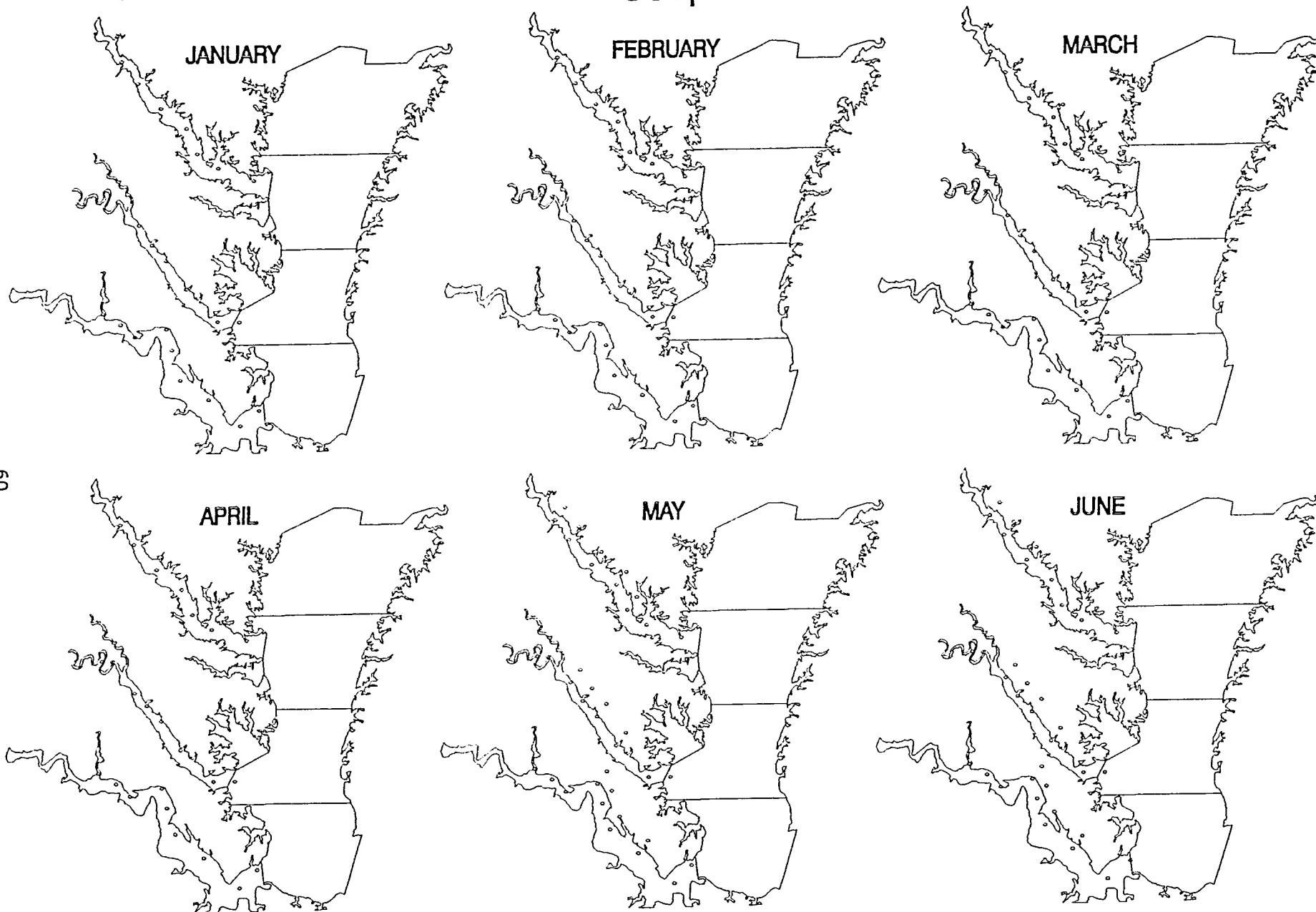
⊕ = 10 to 99

⊗ = 100 to 999

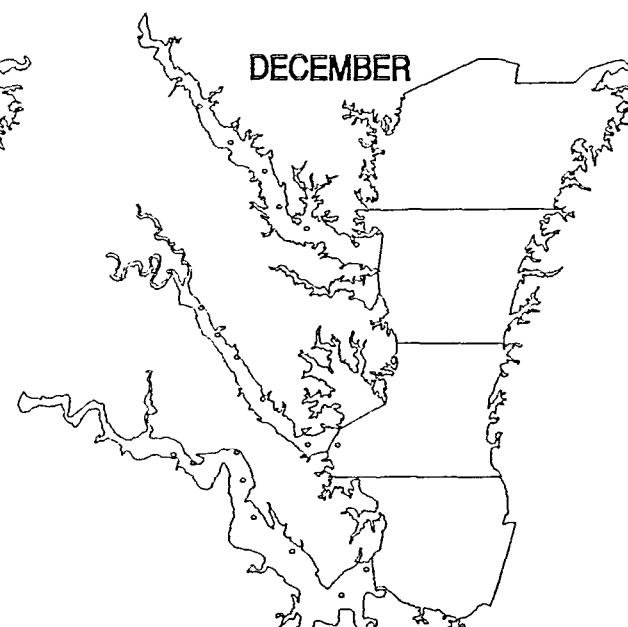
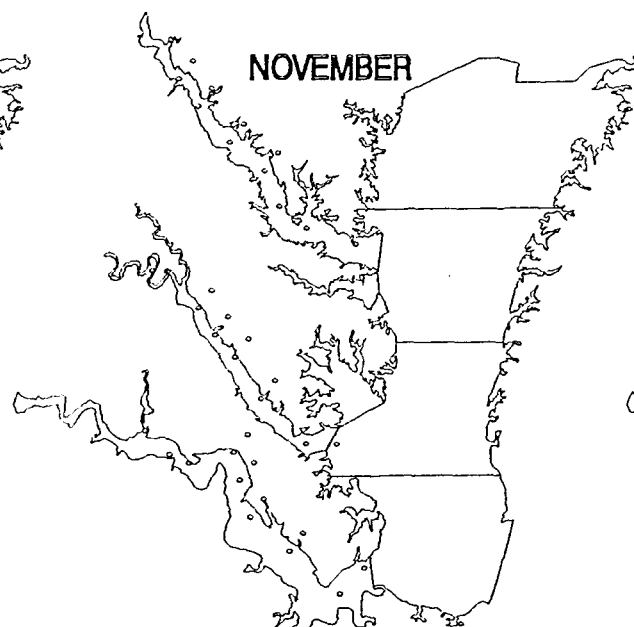
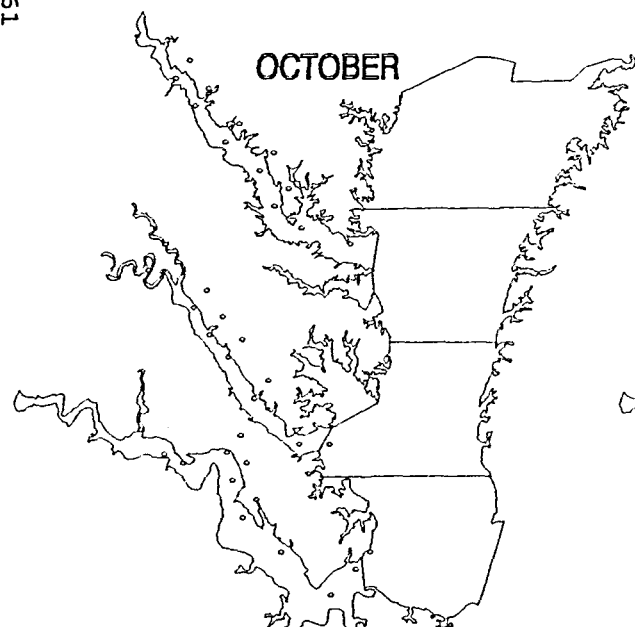
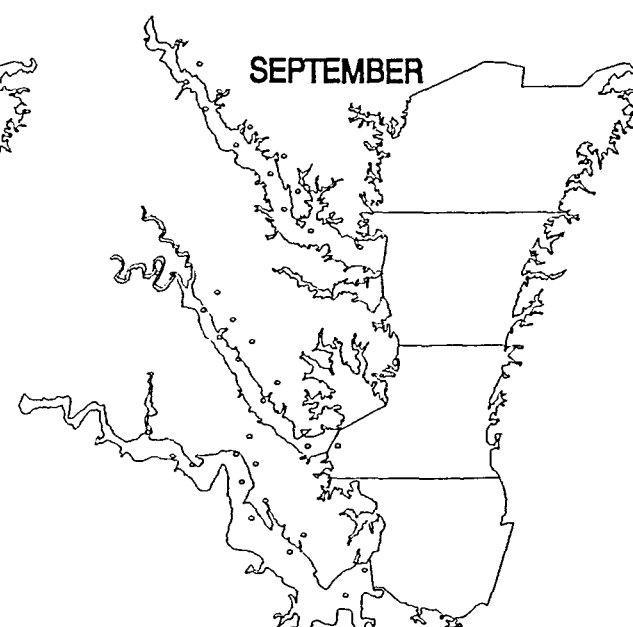
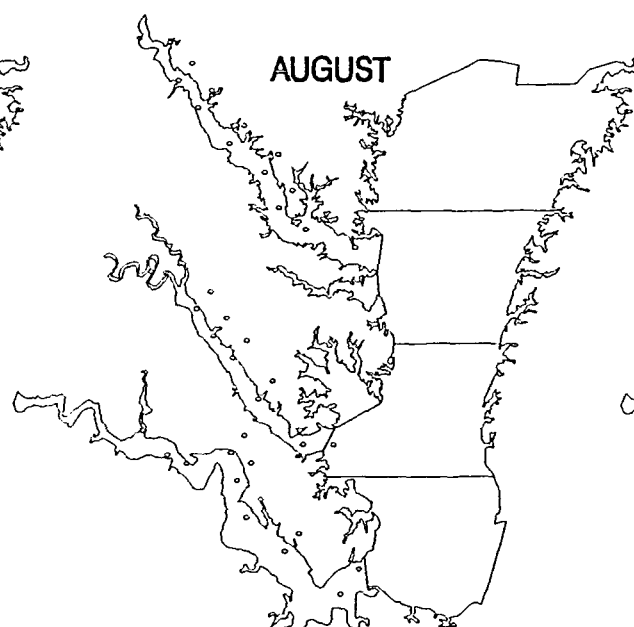
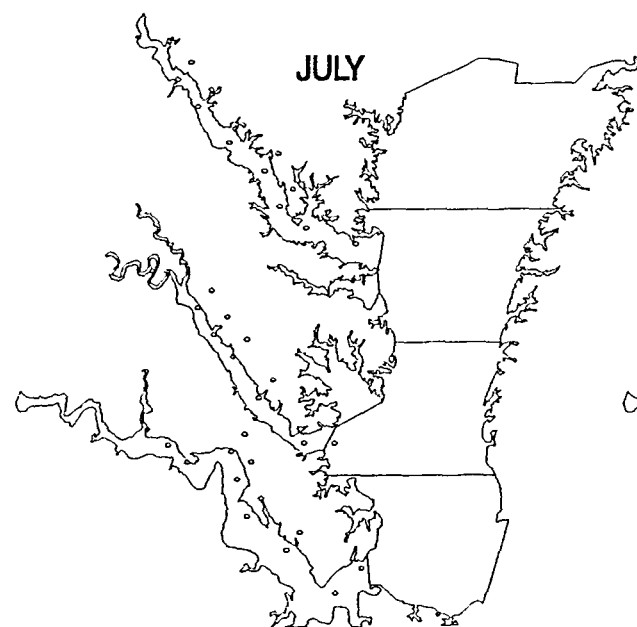
● = ≥ 1,000

Figure 33

Scup



NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊕ = 100 to 999 ● = ≥ 1,000



NUMBER CAUGHT: · = ZERO

○ = 1 to 9

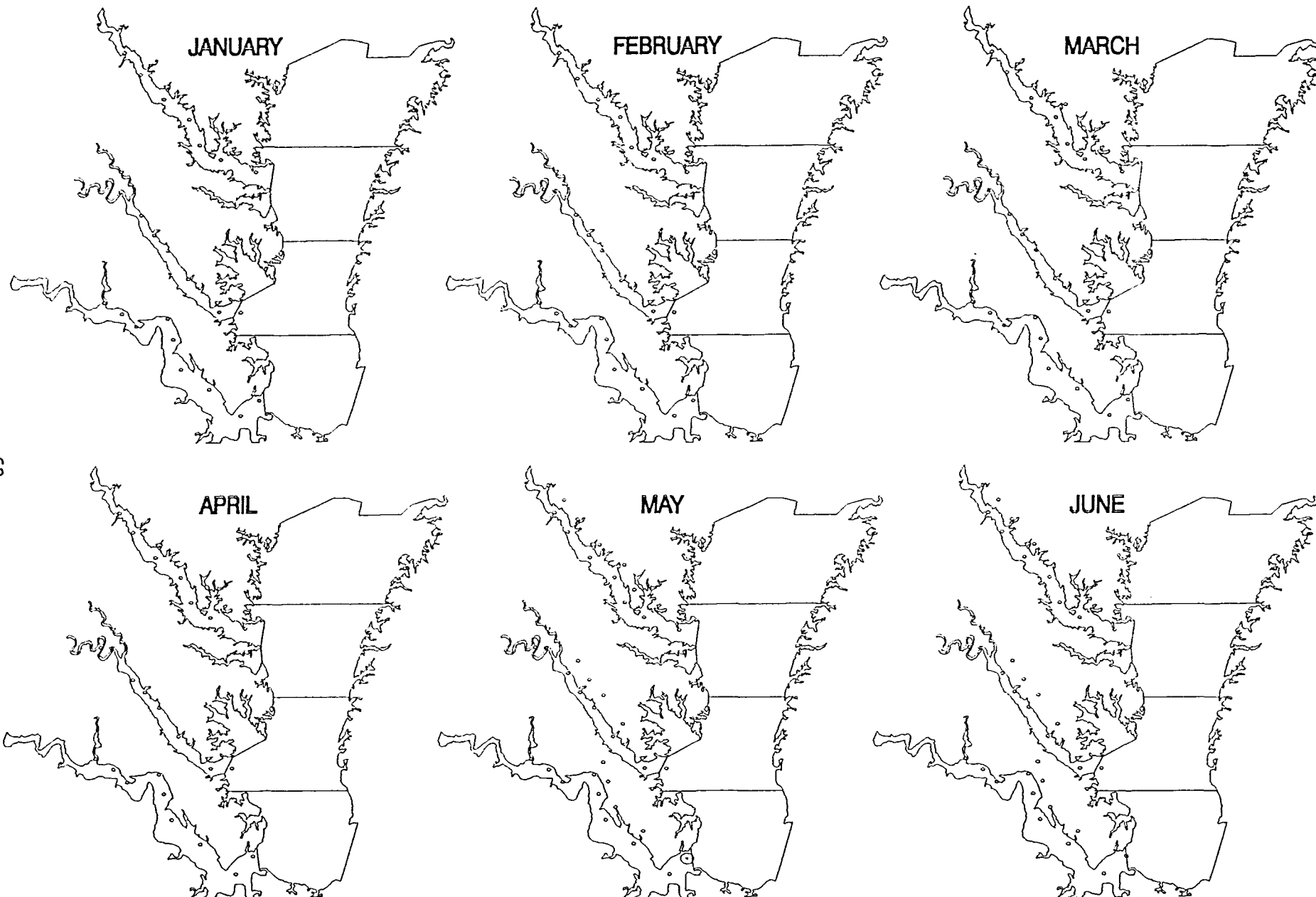
⊕ = 10 to 99

⊕ = 100 to 999

● = ≥ 1,000

Figure 34

Silver Perch



NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

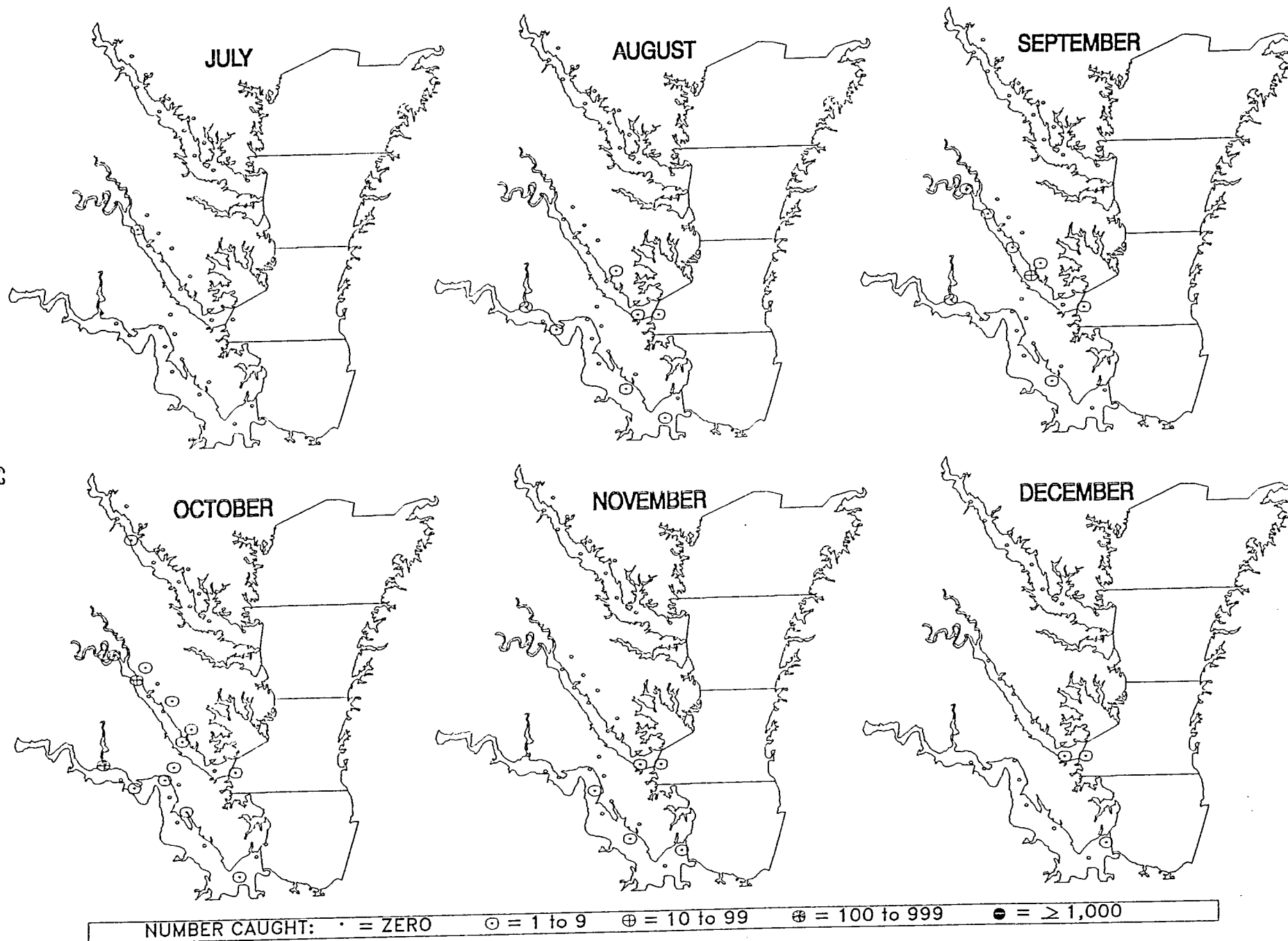
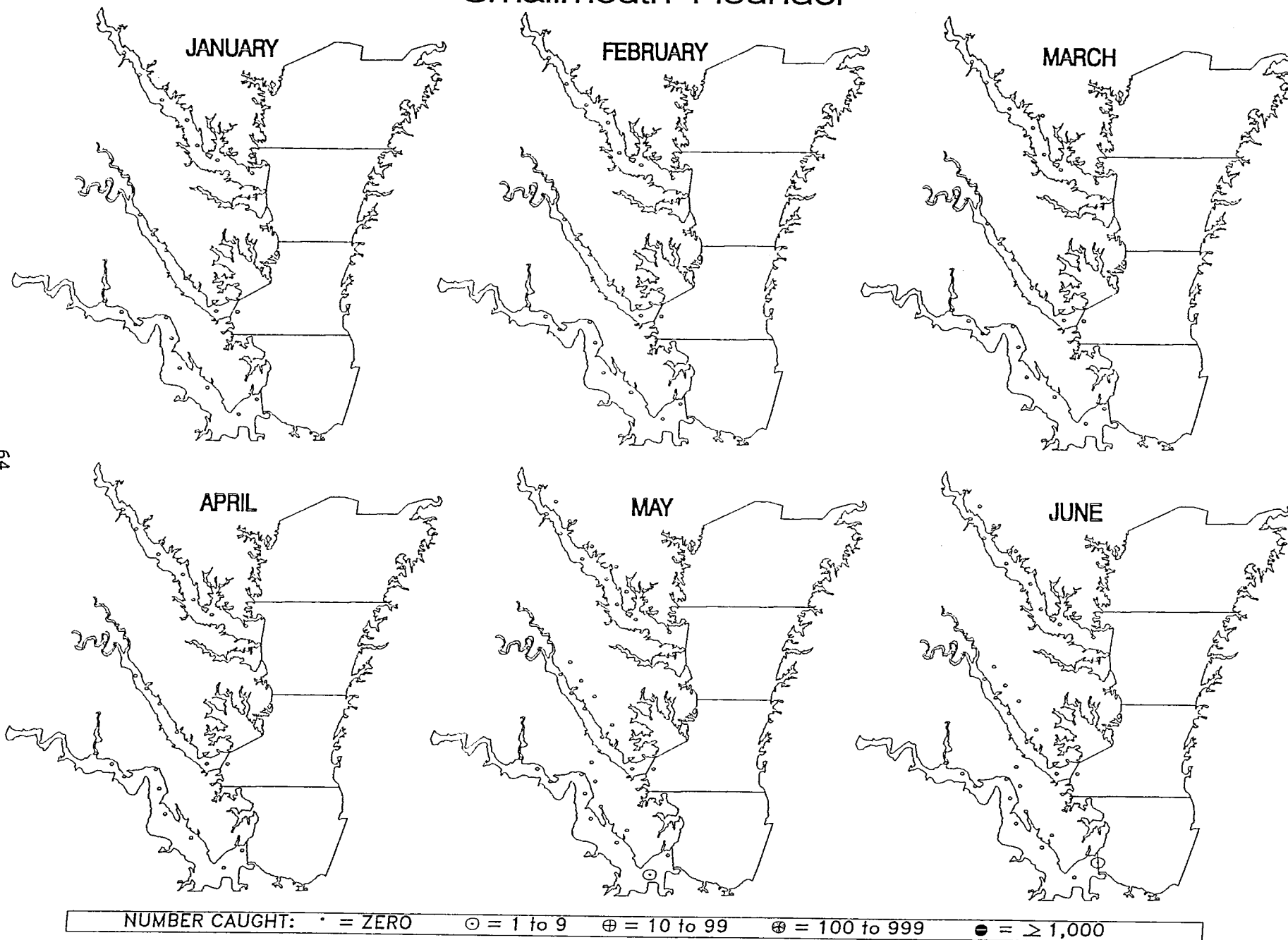
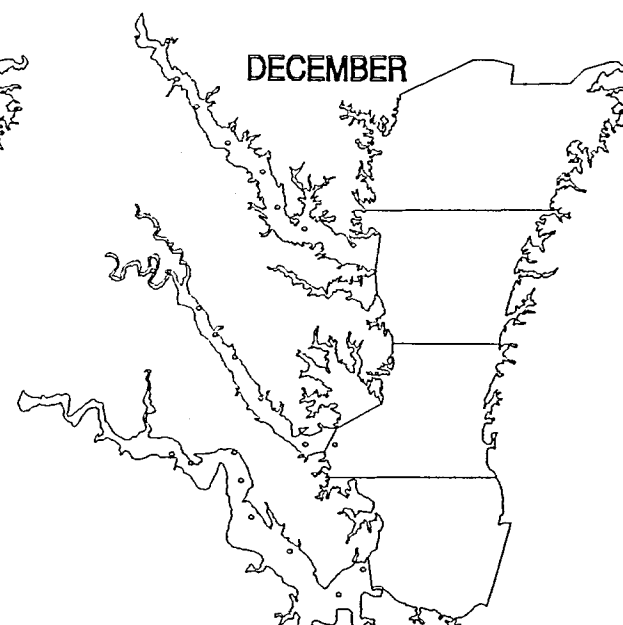
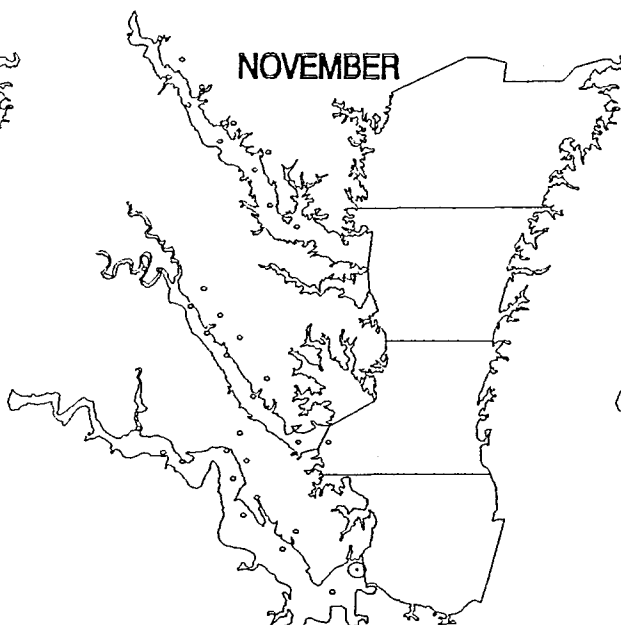
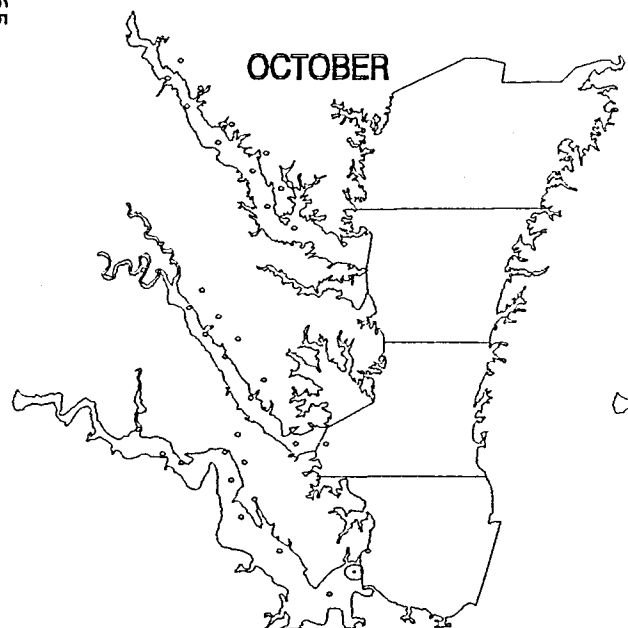
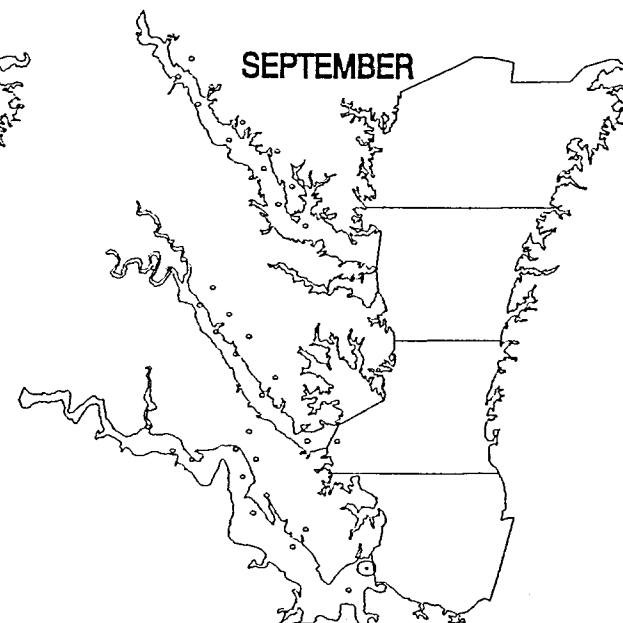
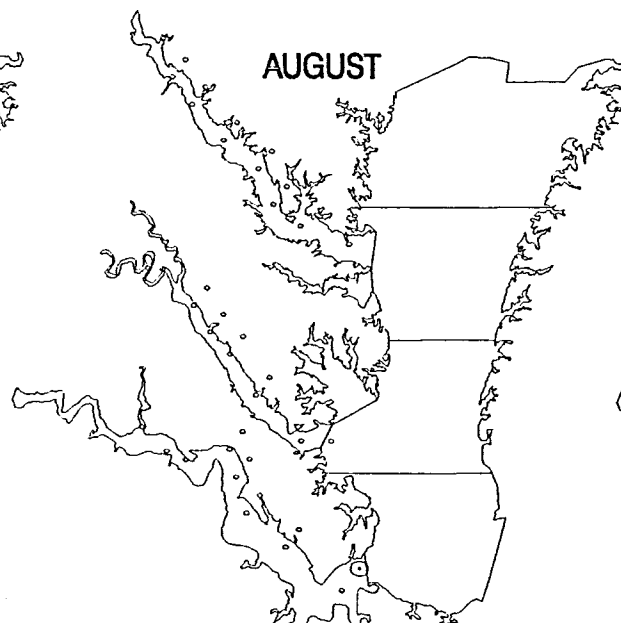
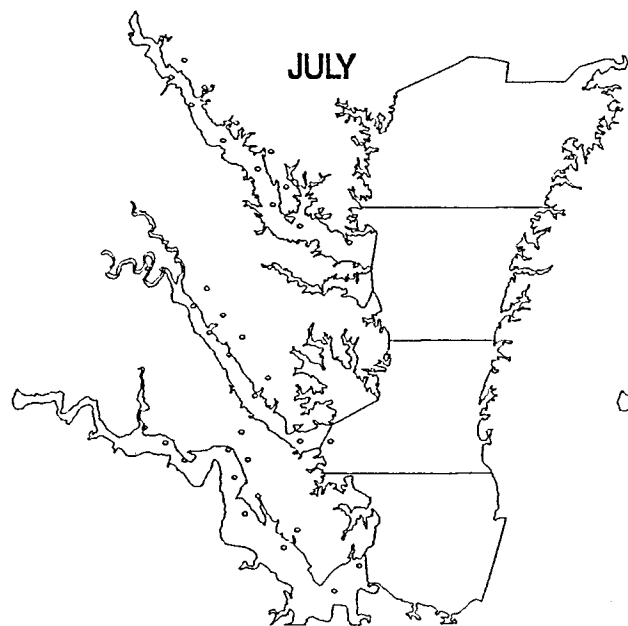


Figure 35

Smallmouth Flounder

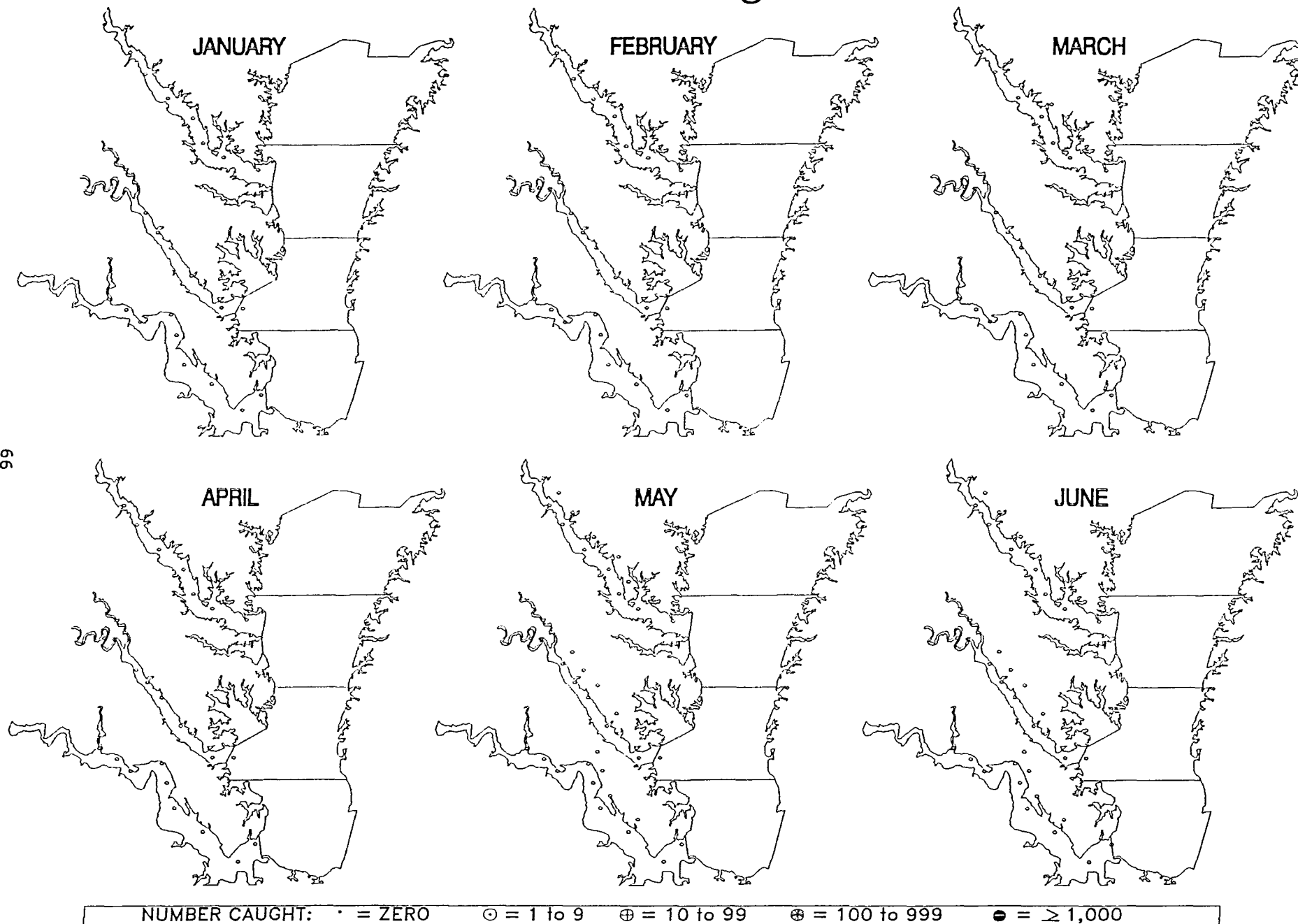


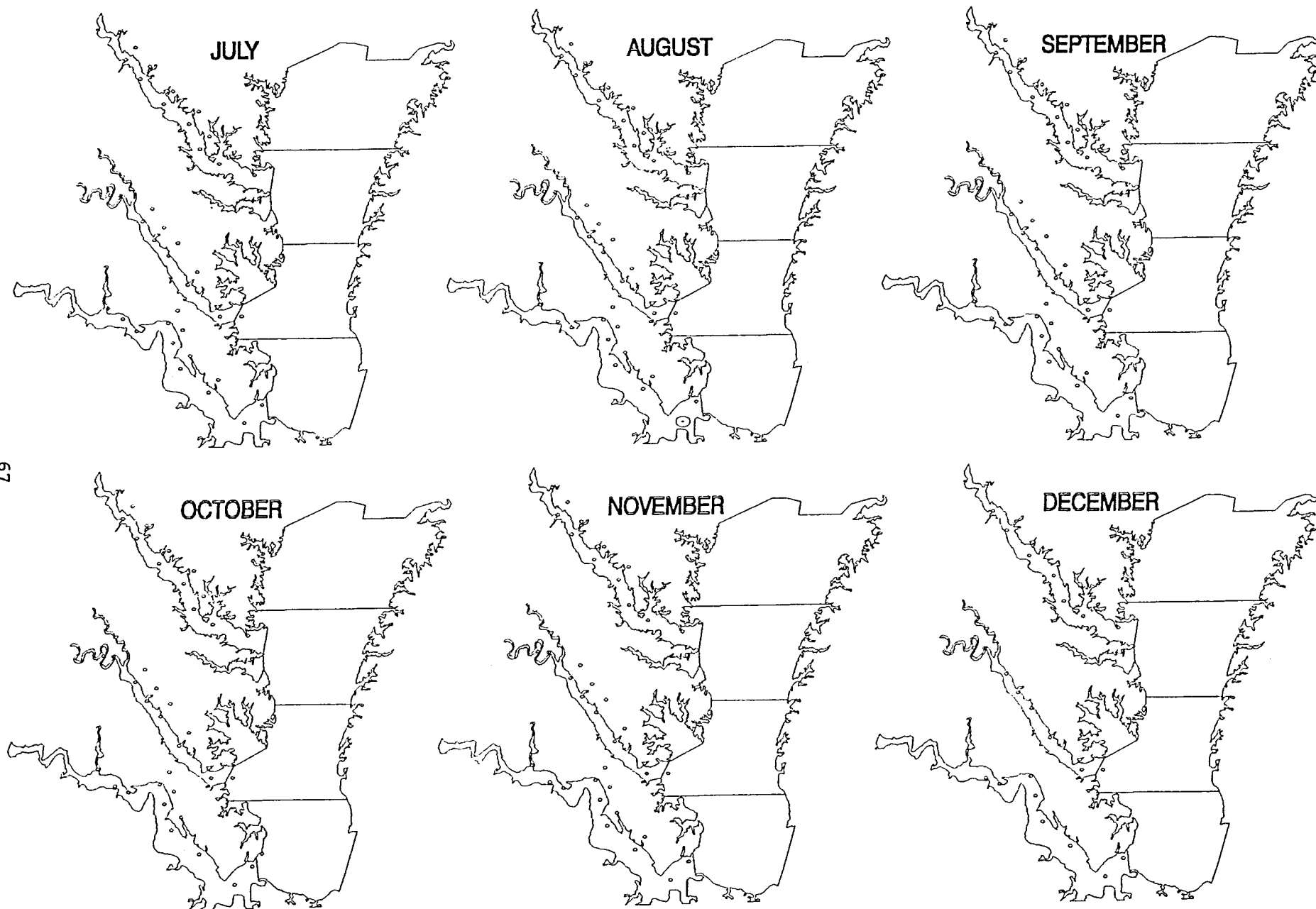


NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 36

Southern Kingfish





NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

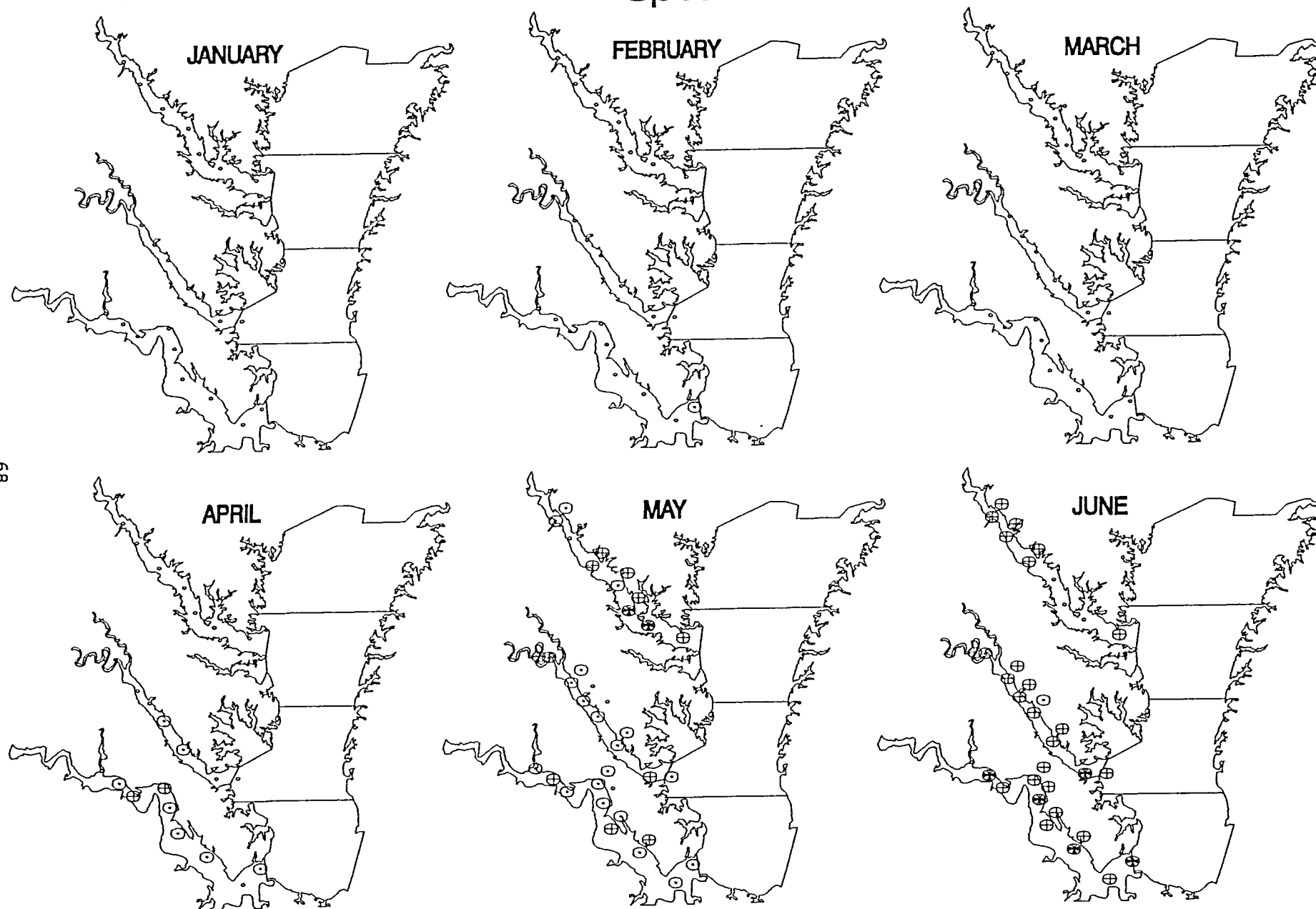
⊕ = 10 to 99

⊞ = 100 to 999

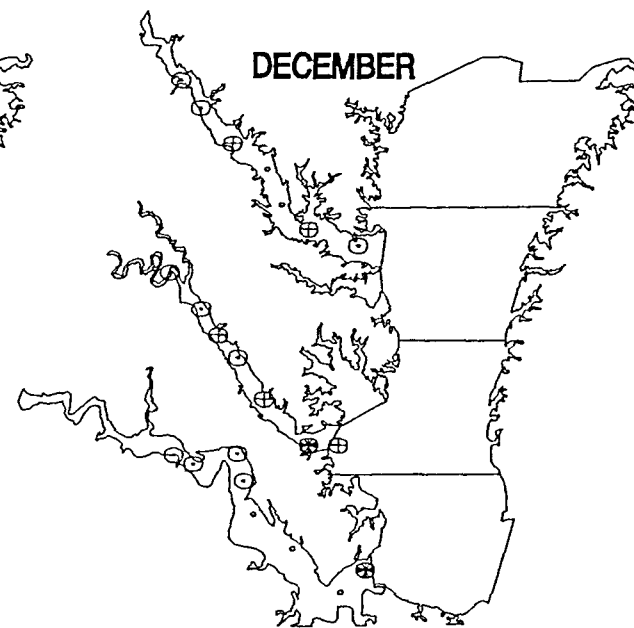
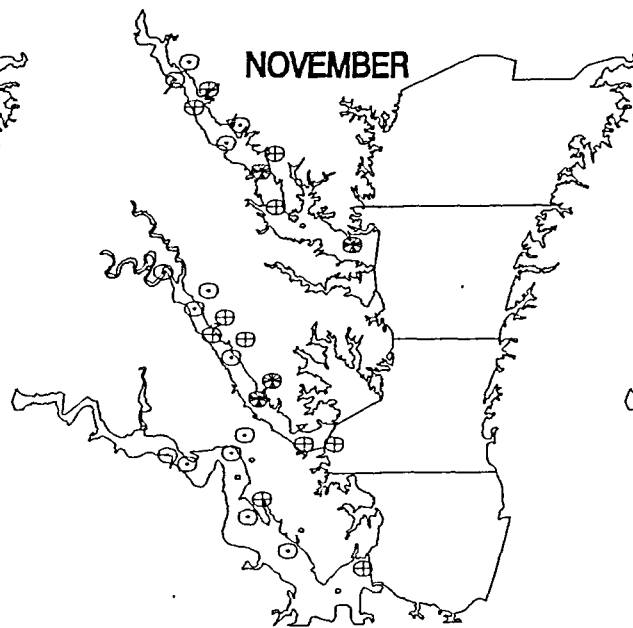
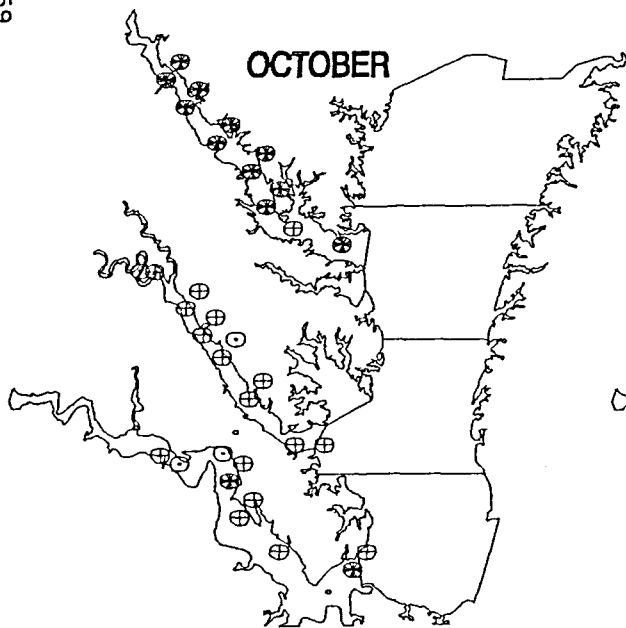
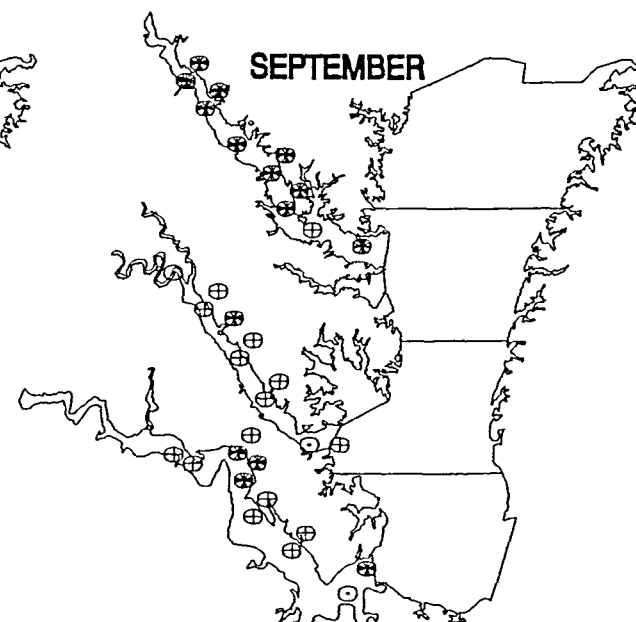
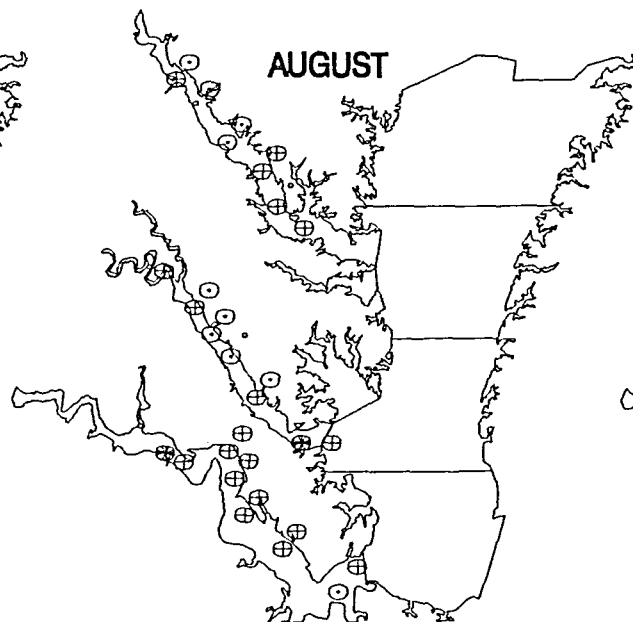
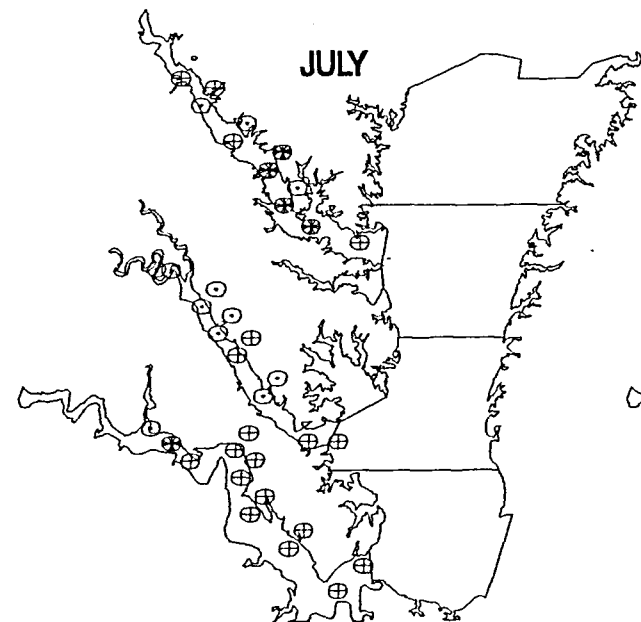
● = $\geq 1,000$

Figure 37

Spot



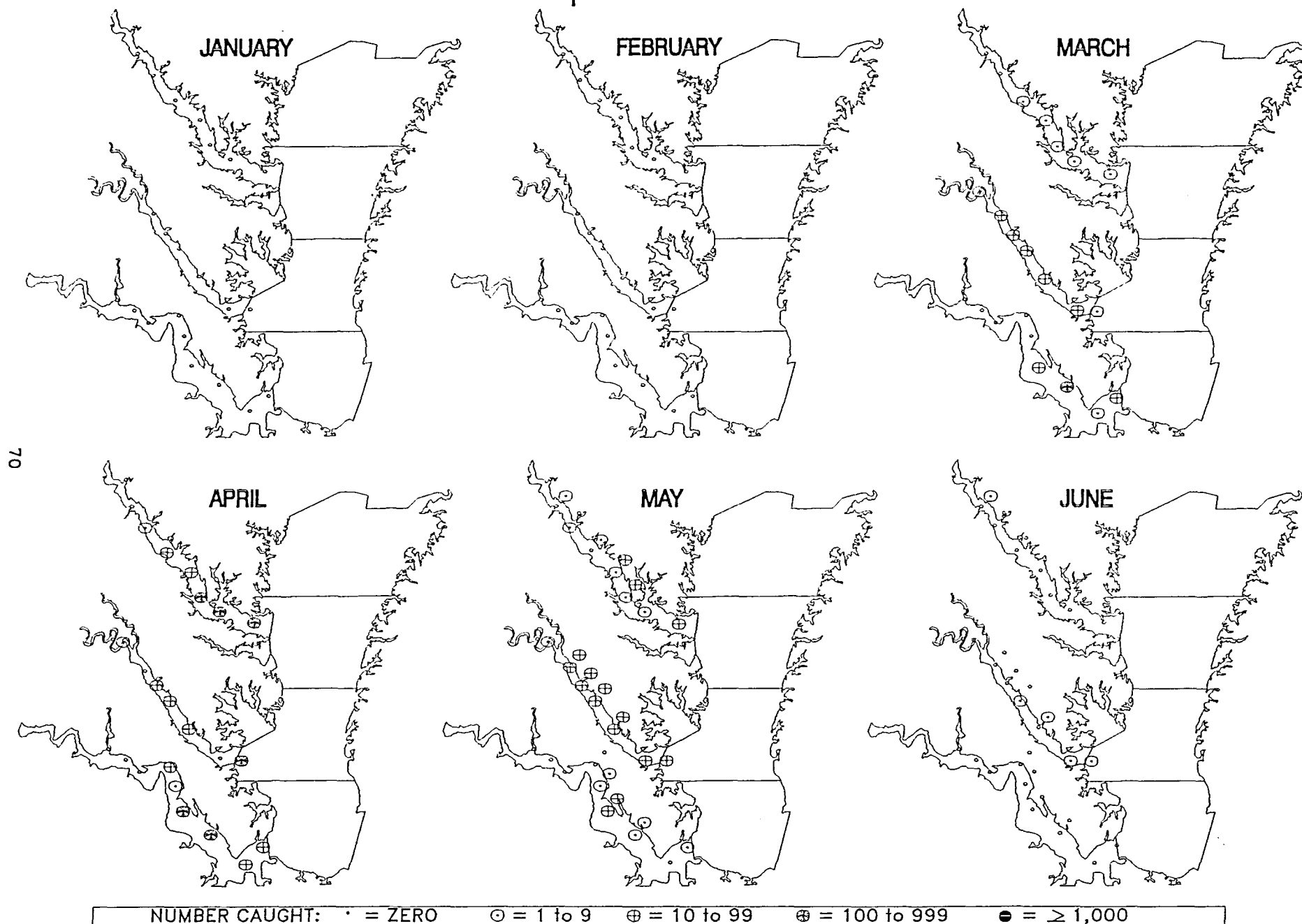
NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

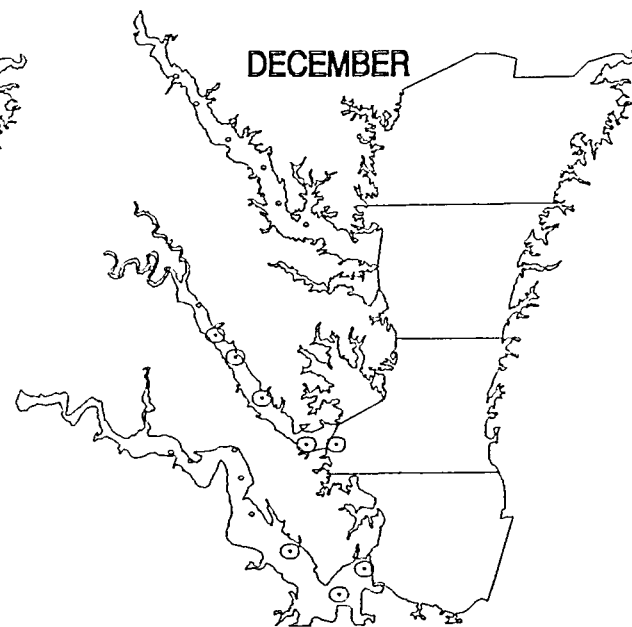
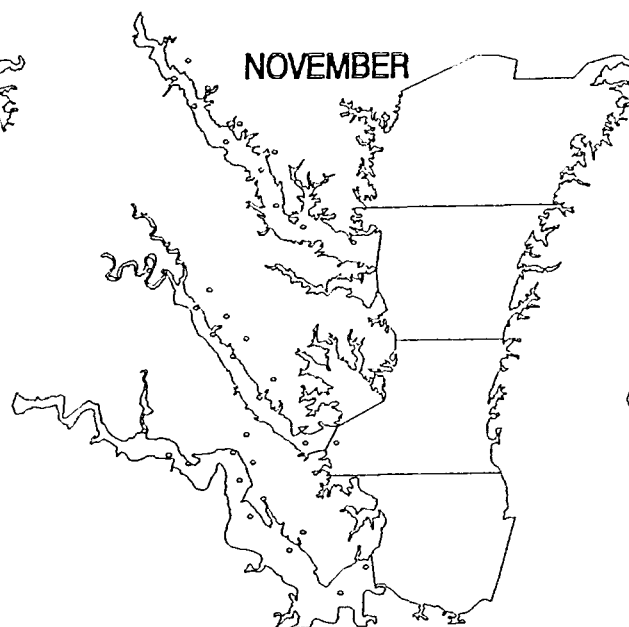
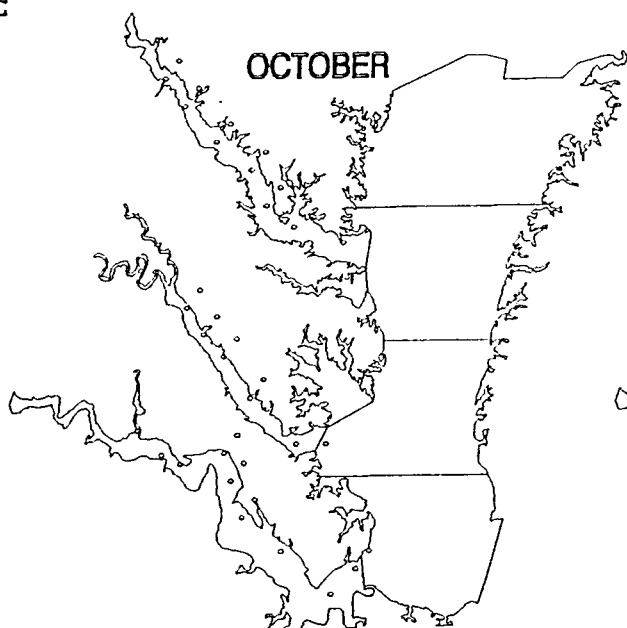
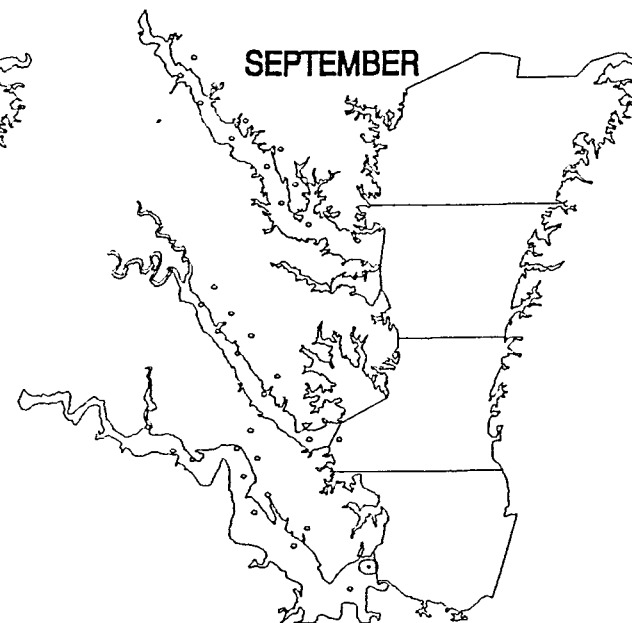
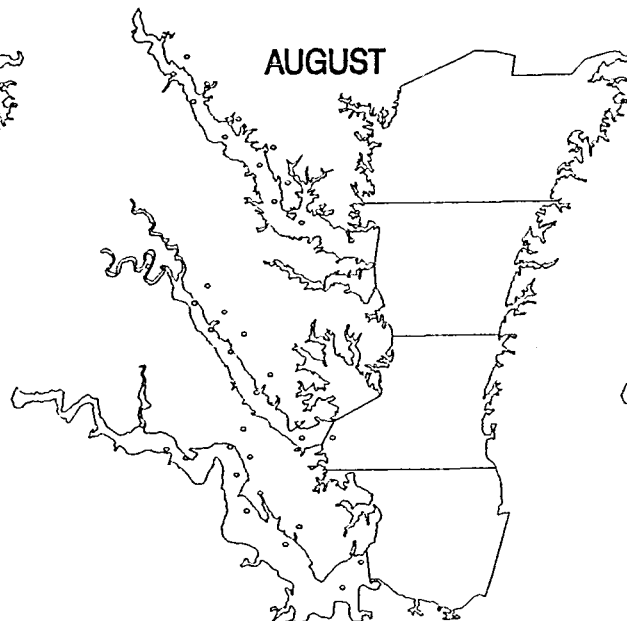
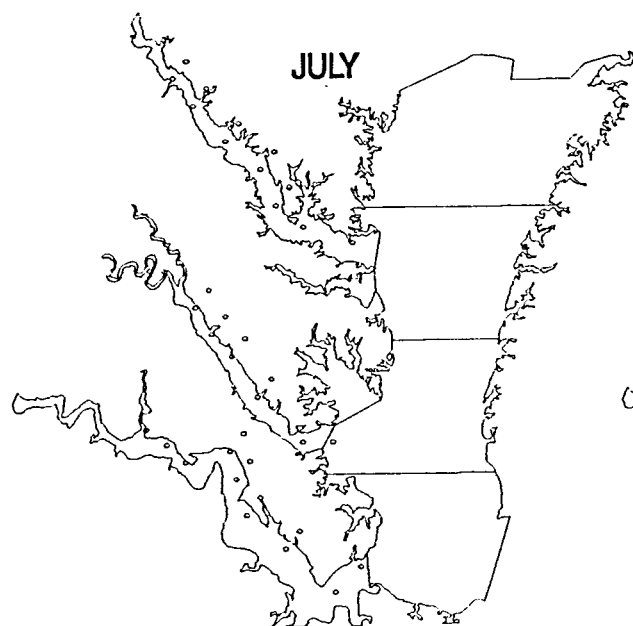


NUMBER CAUGHT: \cdot = ZERO \odot = 1 to 9 \oplus = 10 to 99 \otimes = 100 to 999 \bullet = $\geq 1,000$

Figure 38

Spotted Hake

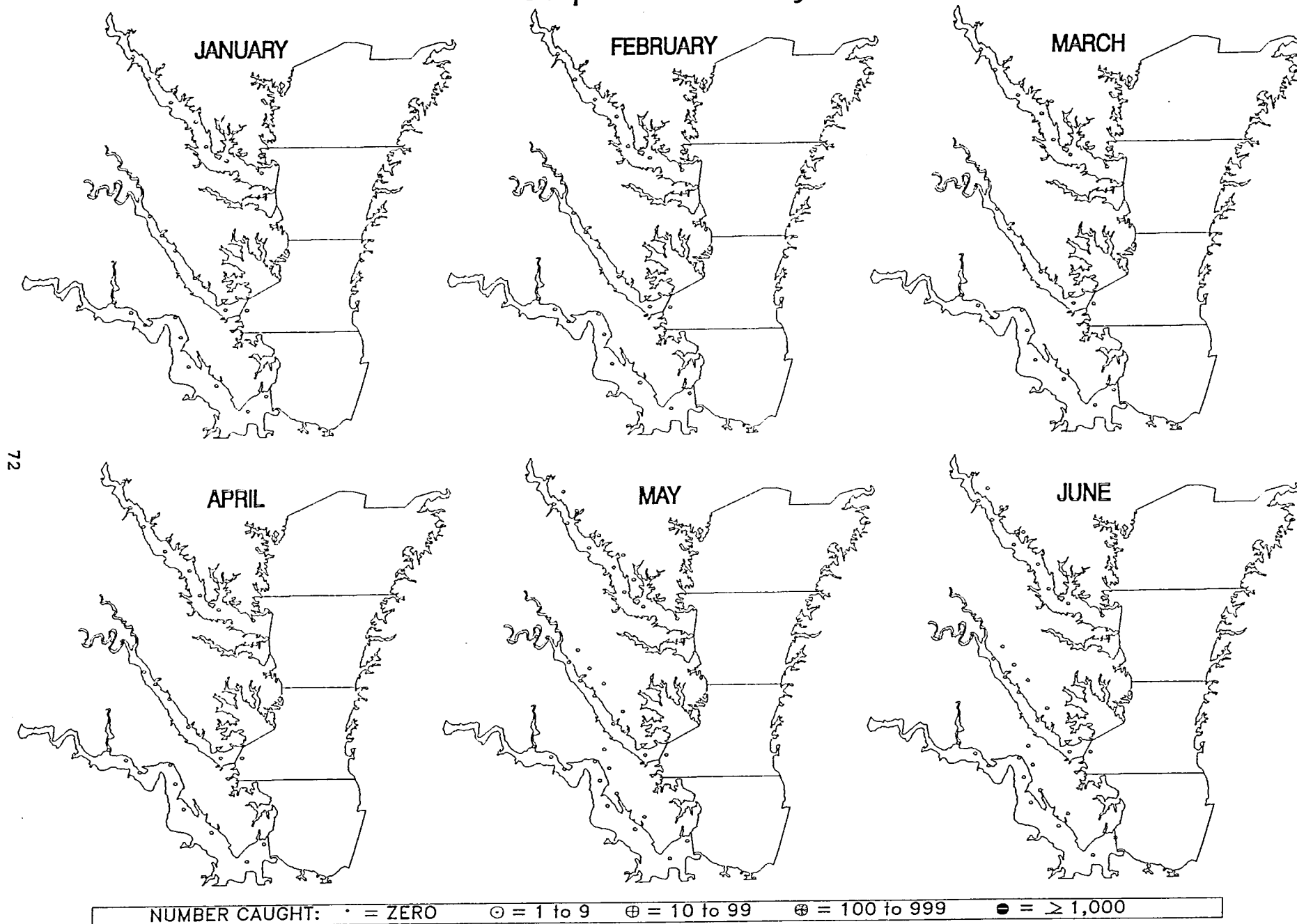


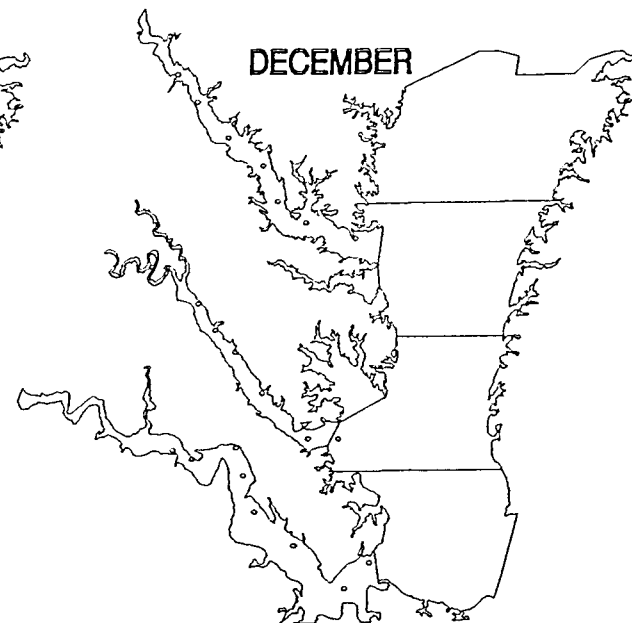
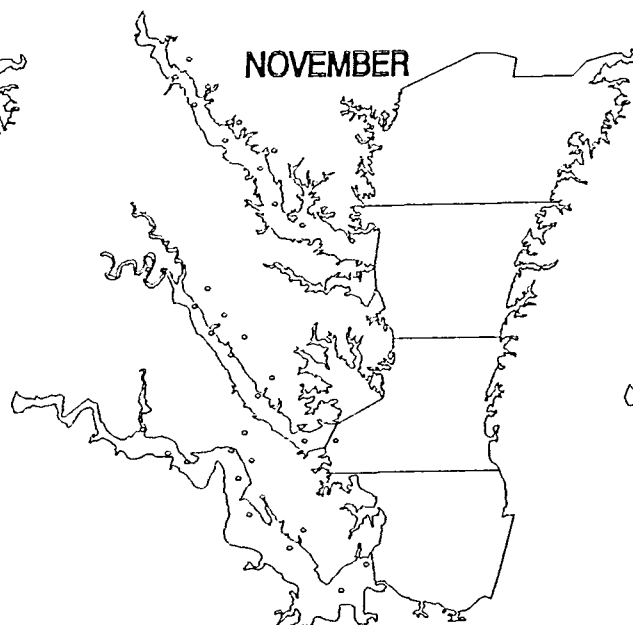
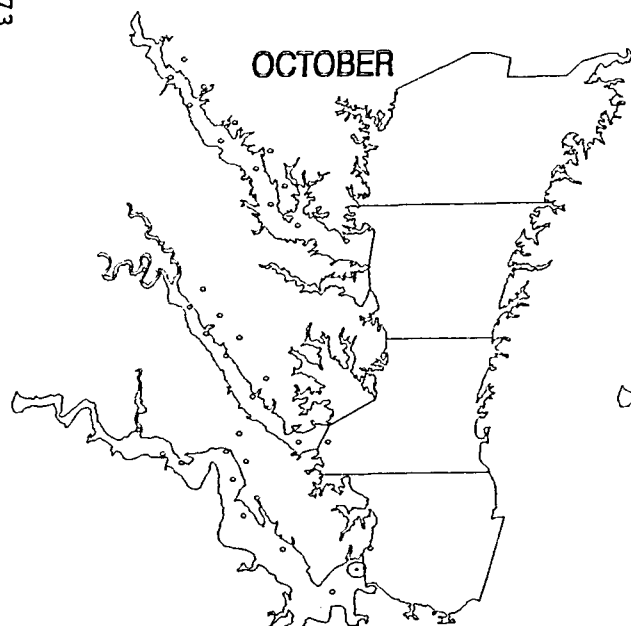
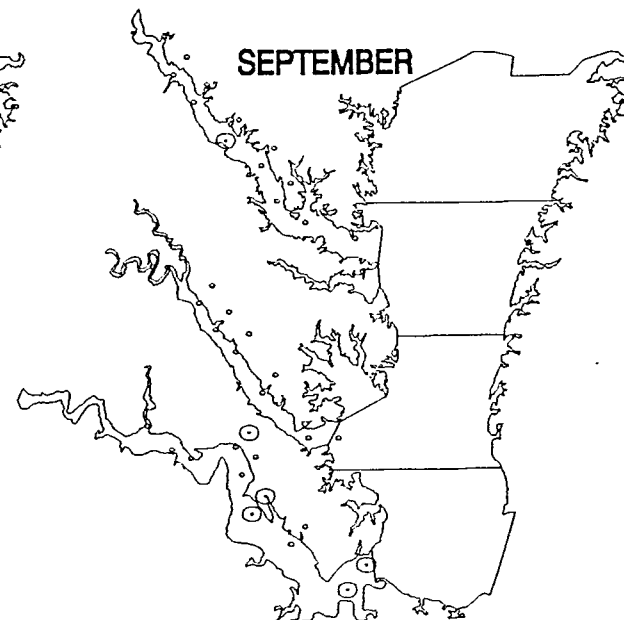
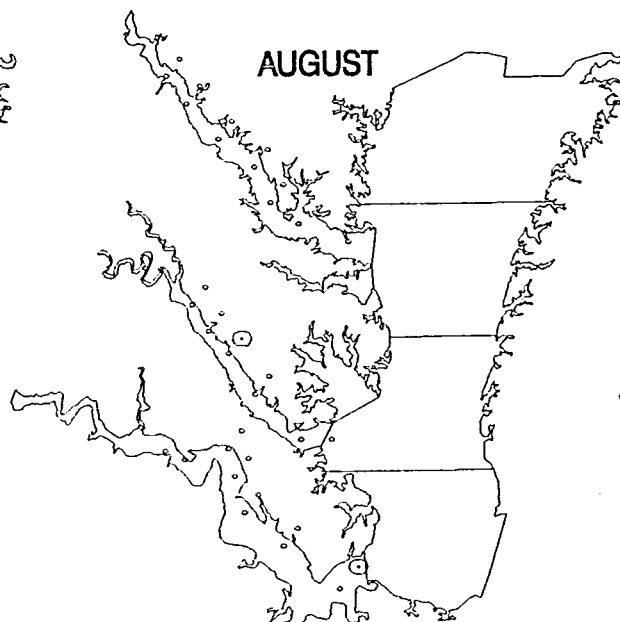
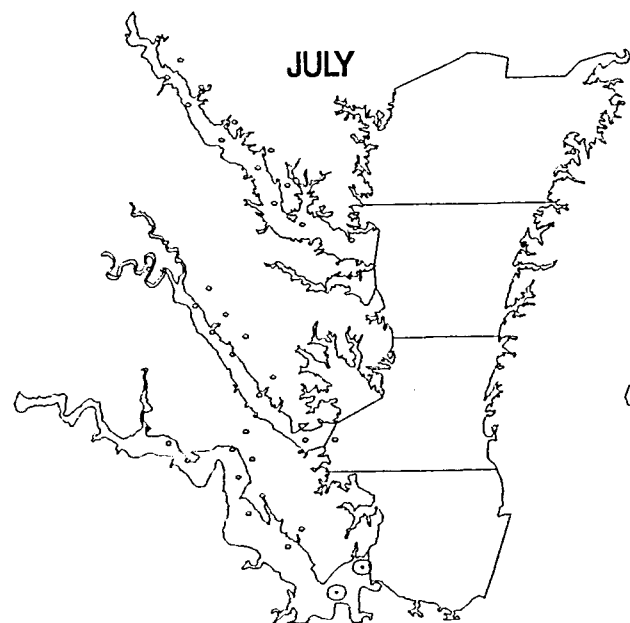


NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 39

Striped Anchovy

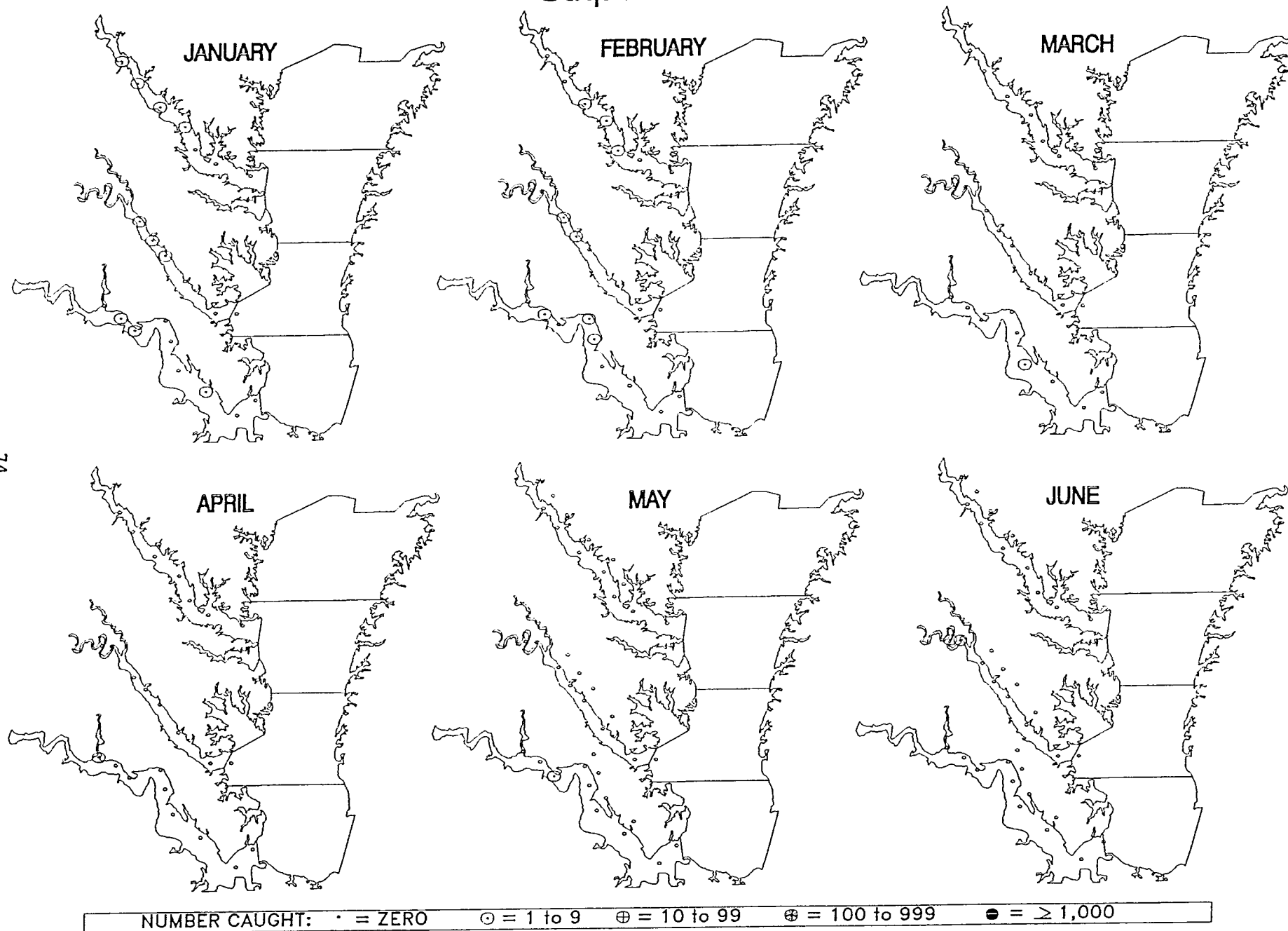




NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊕ = 100 to 999 ● = ≥ 1,000

Figure 40

Striped Bass



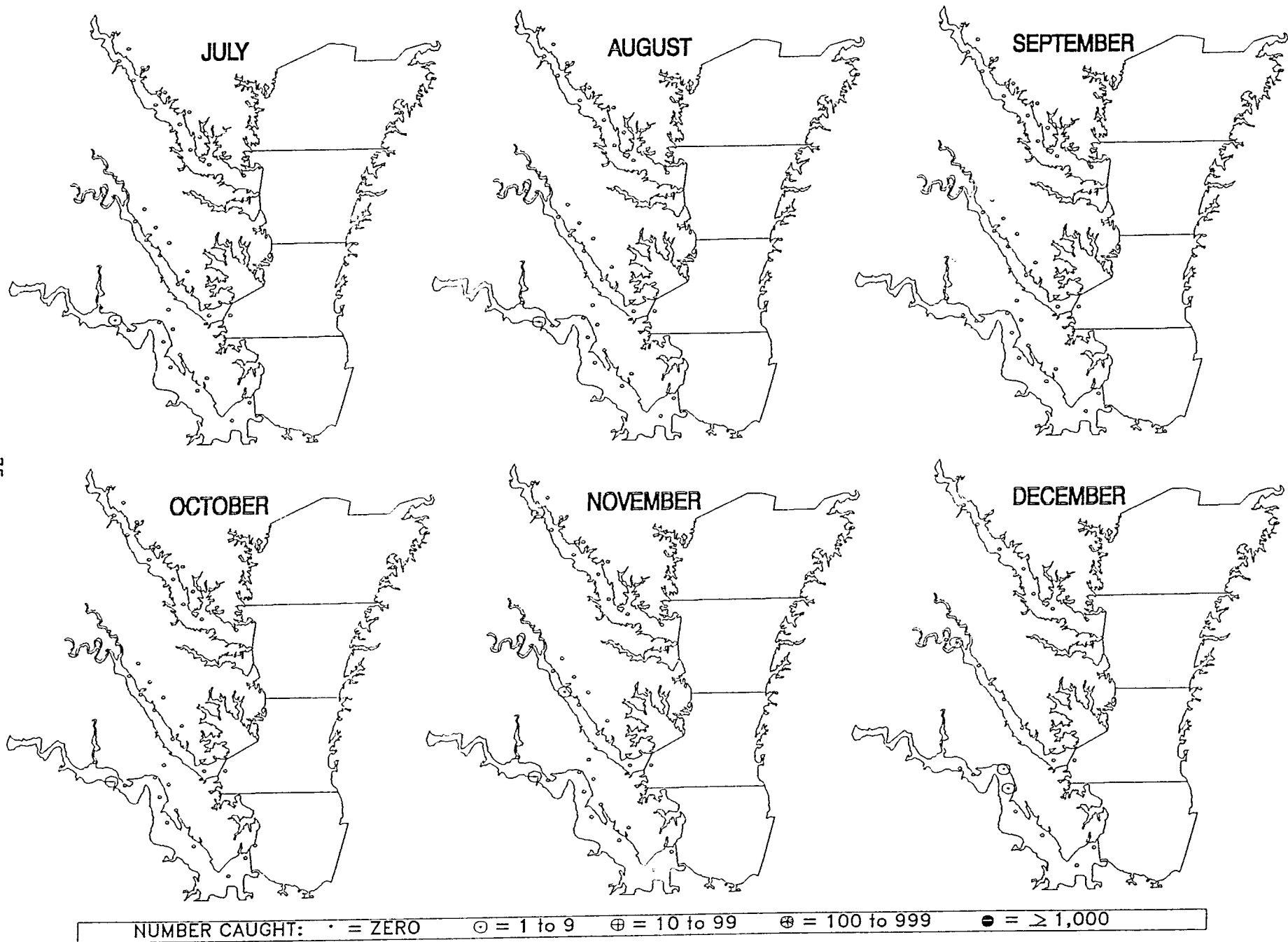
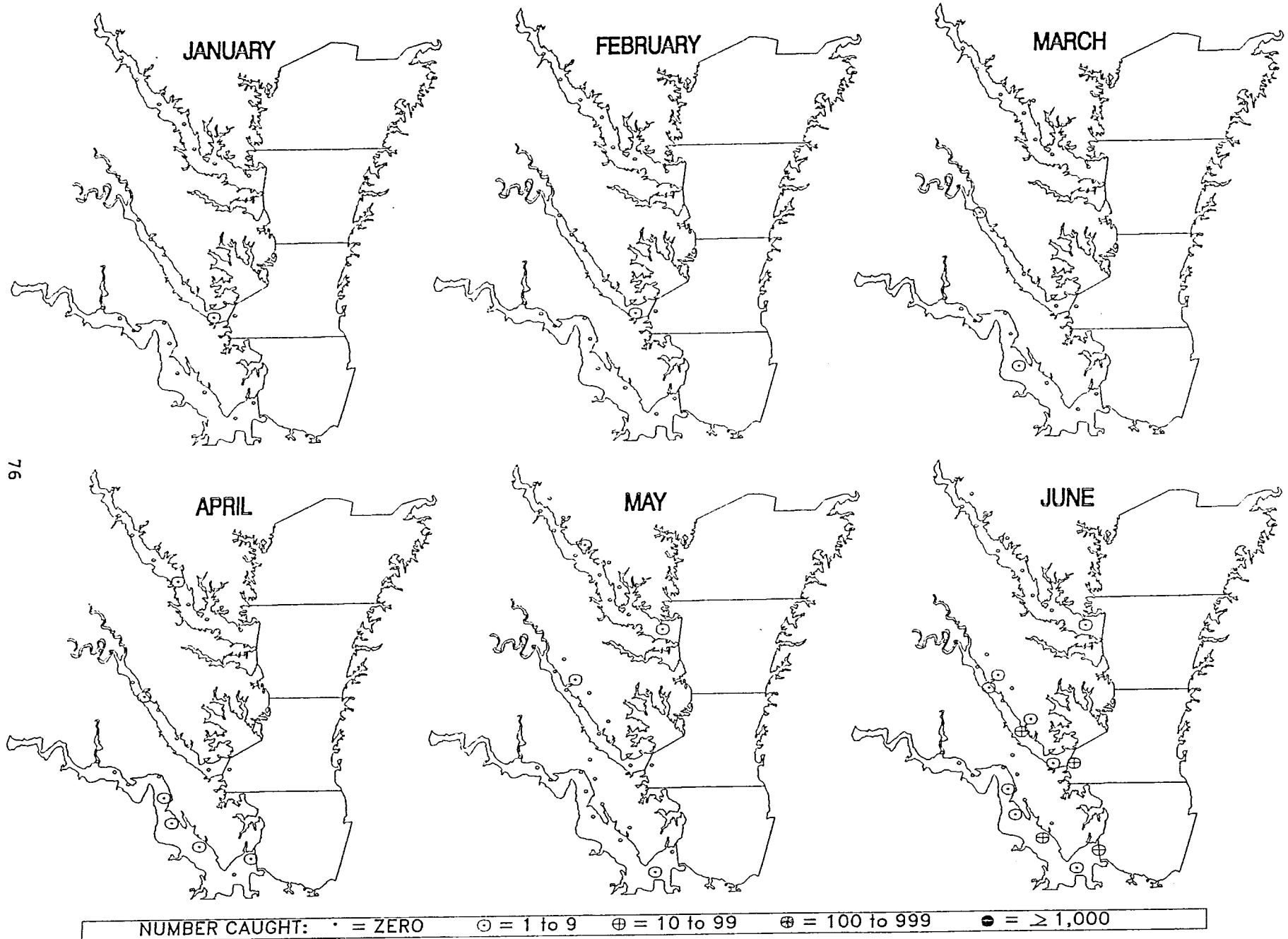
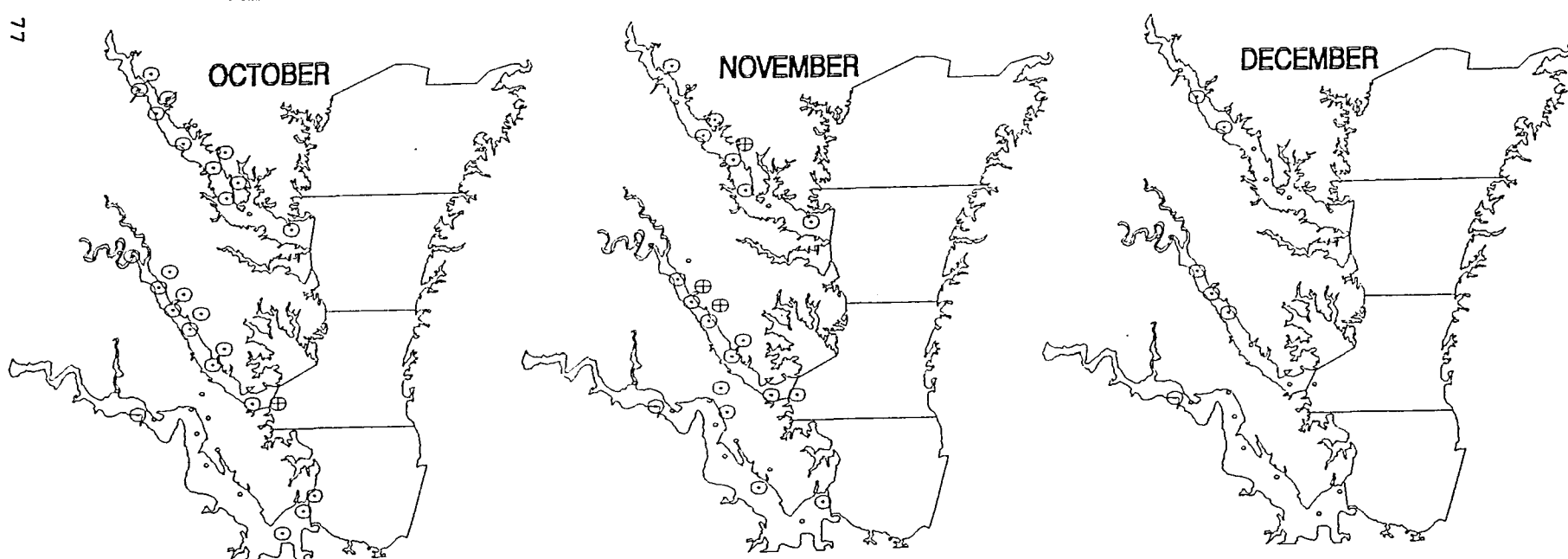
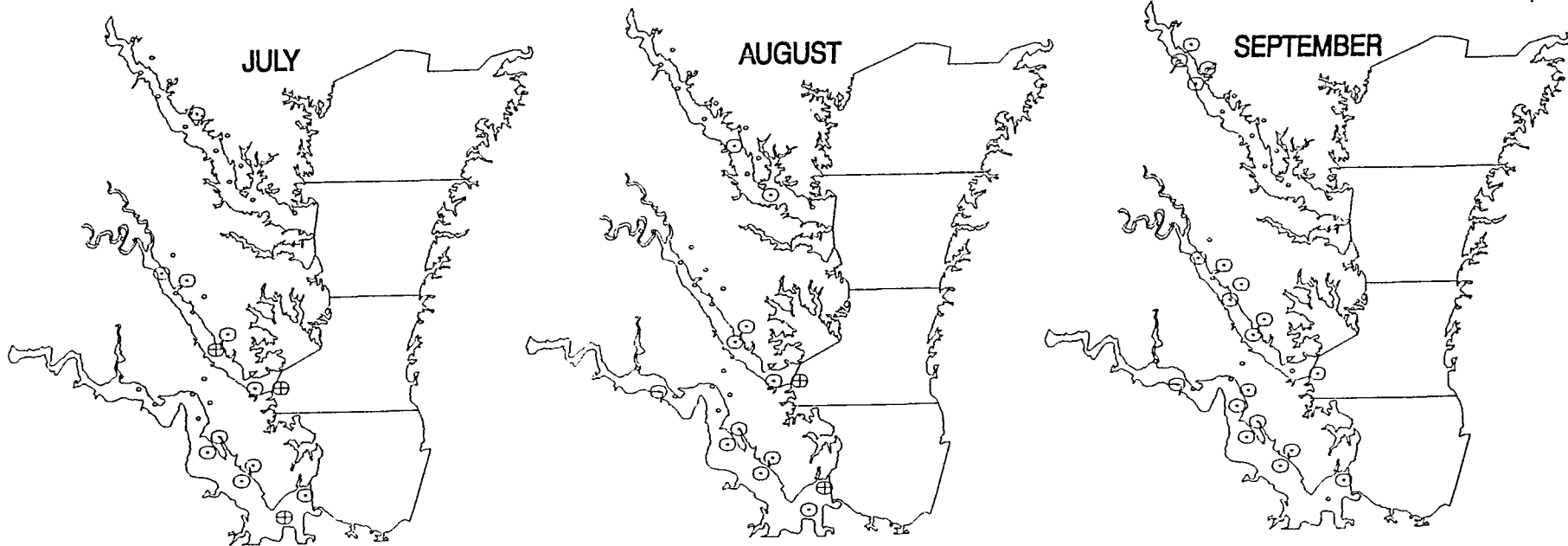


Figure 41

Summer Flounder

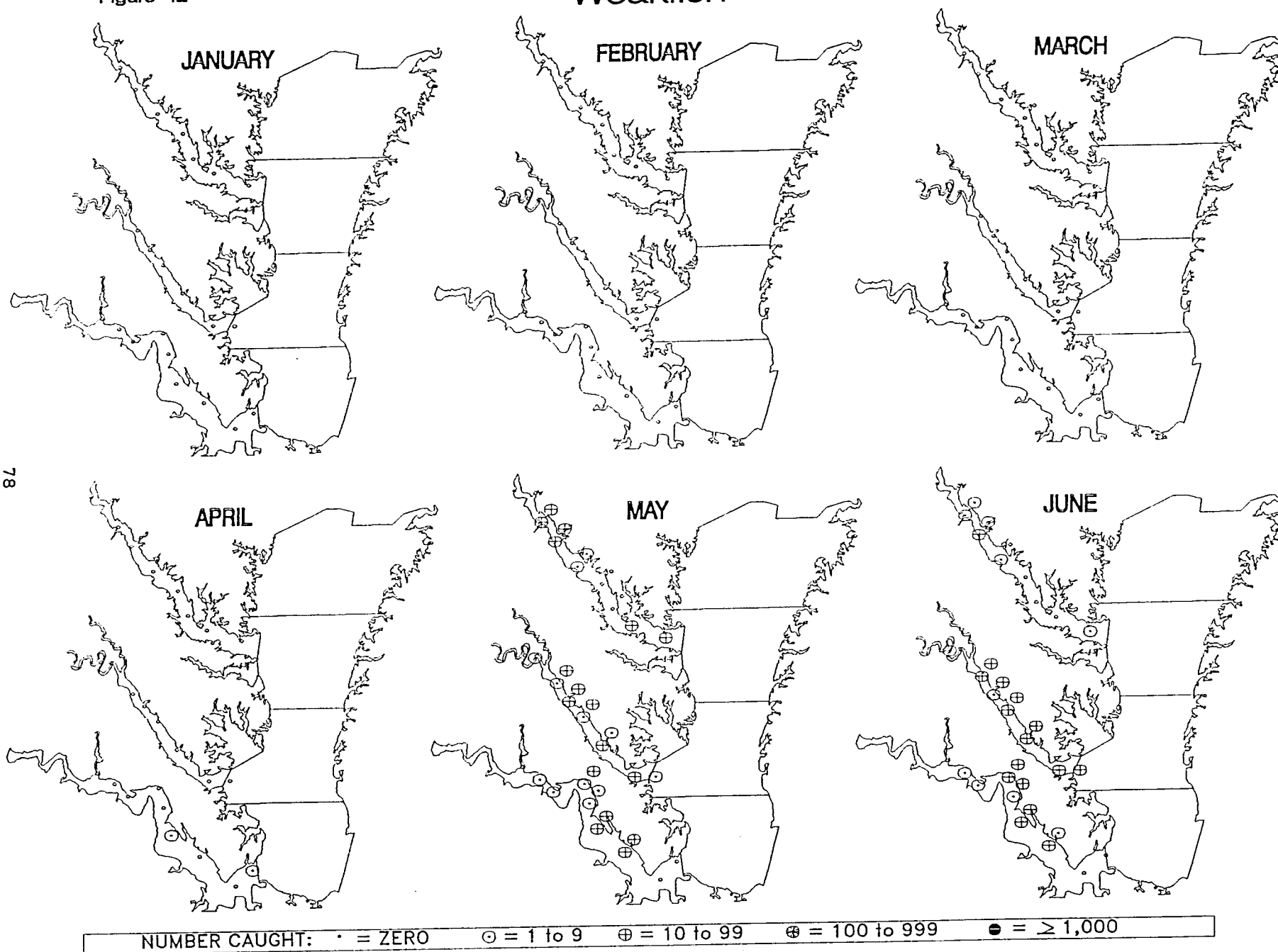


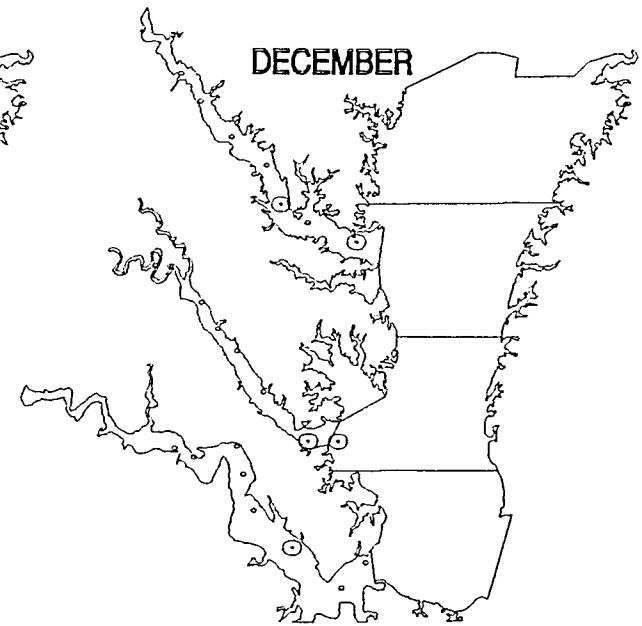
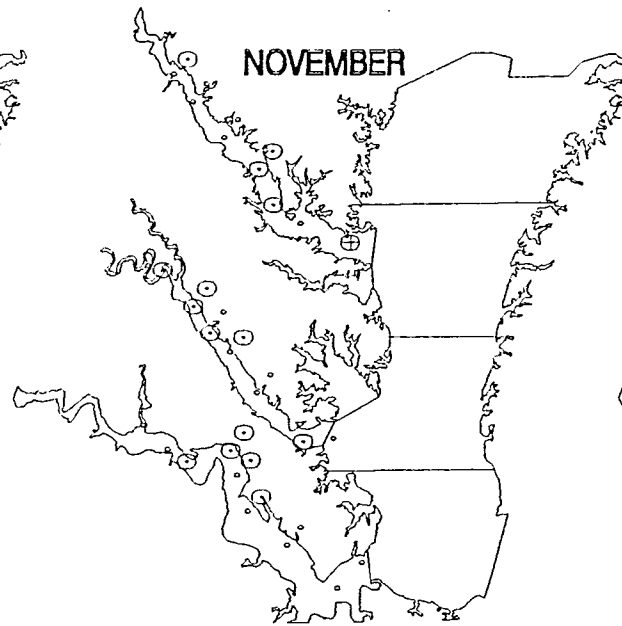
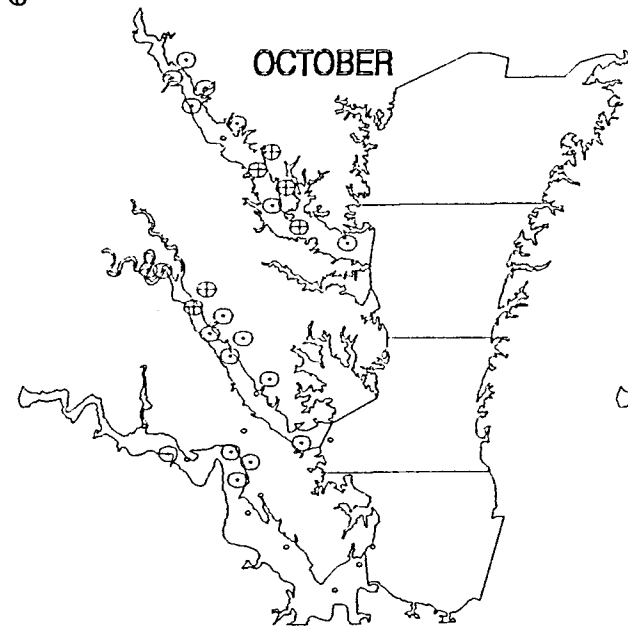
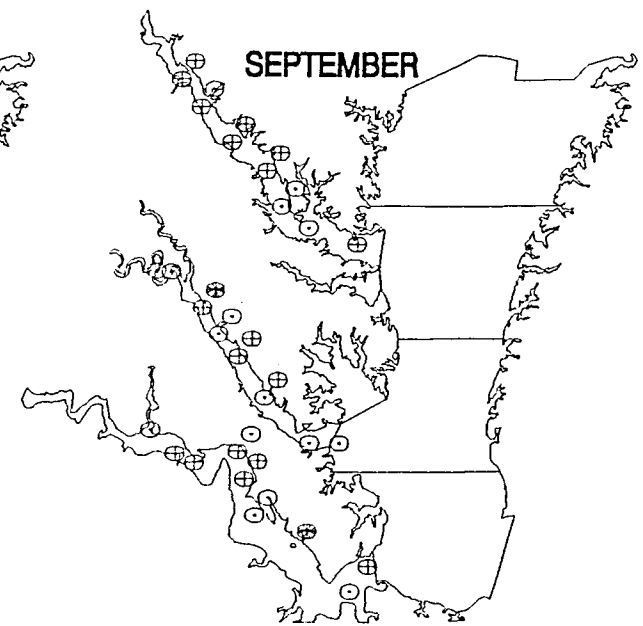
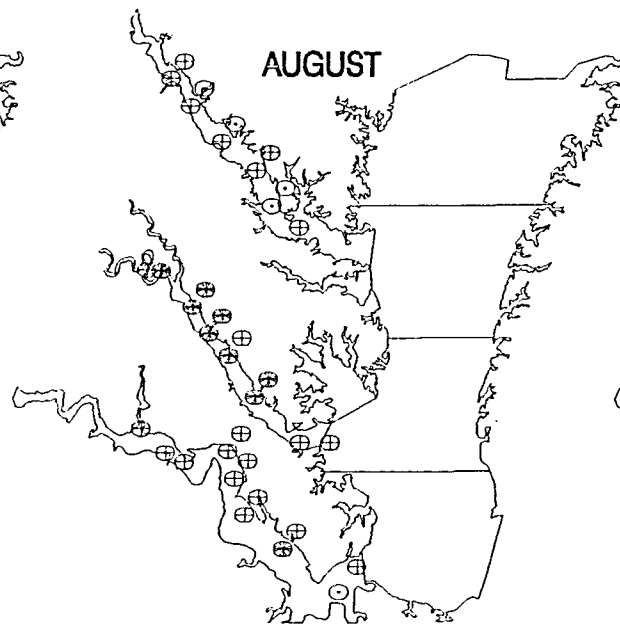
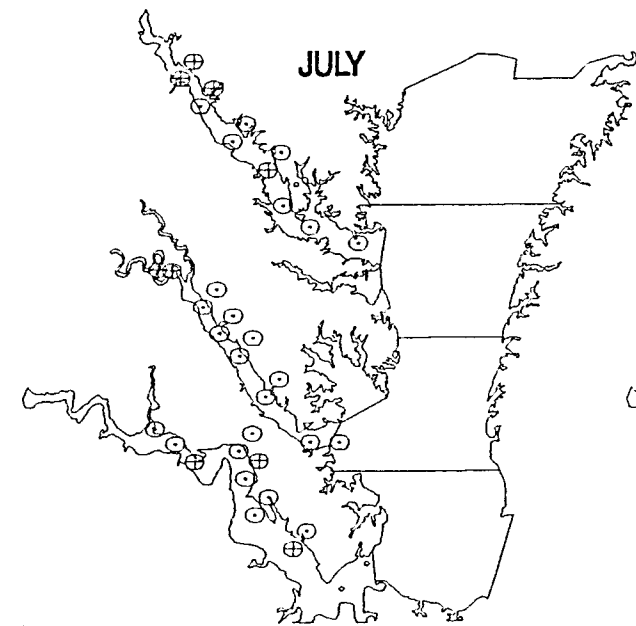


NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 42

Weakfish

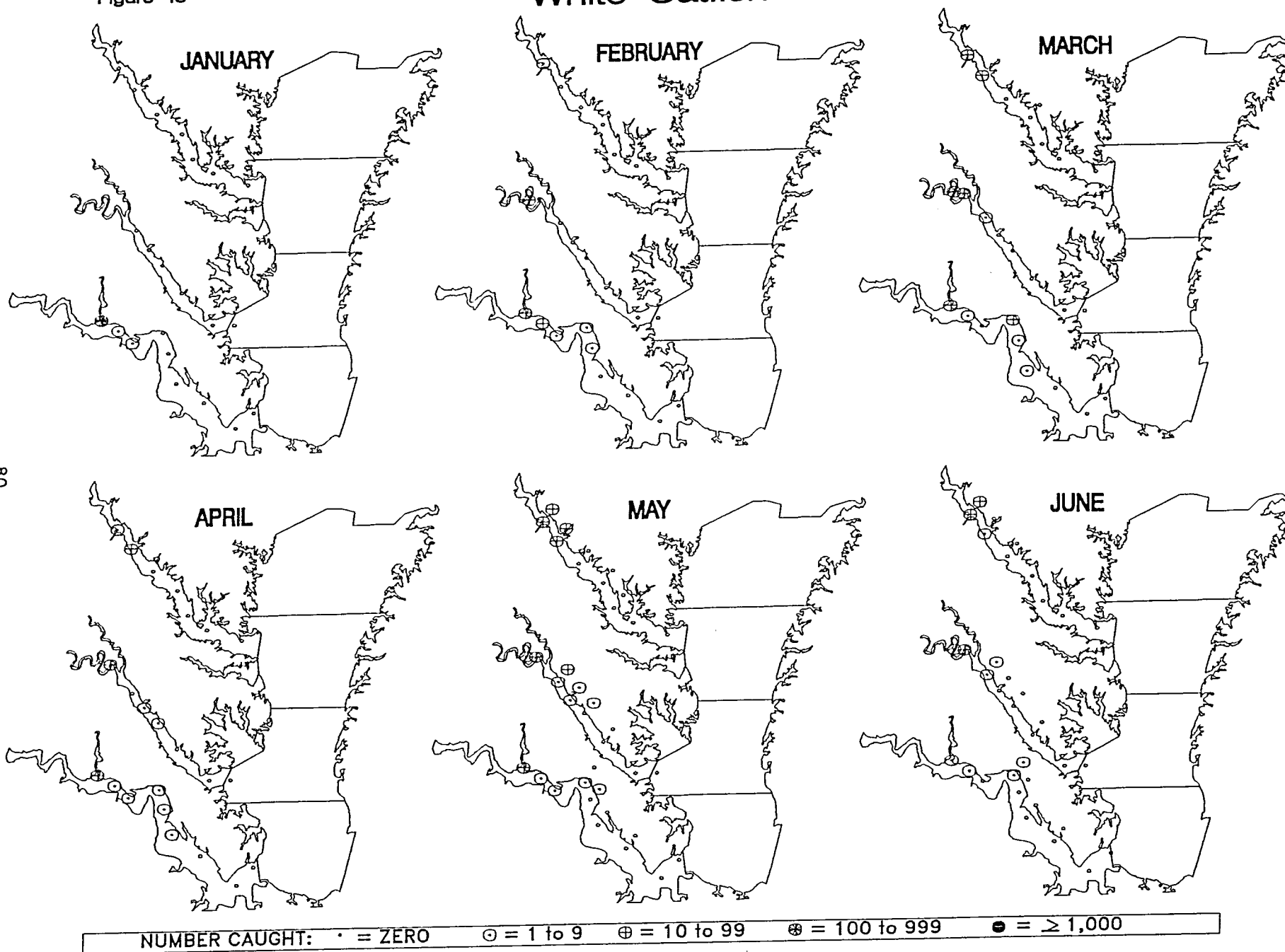


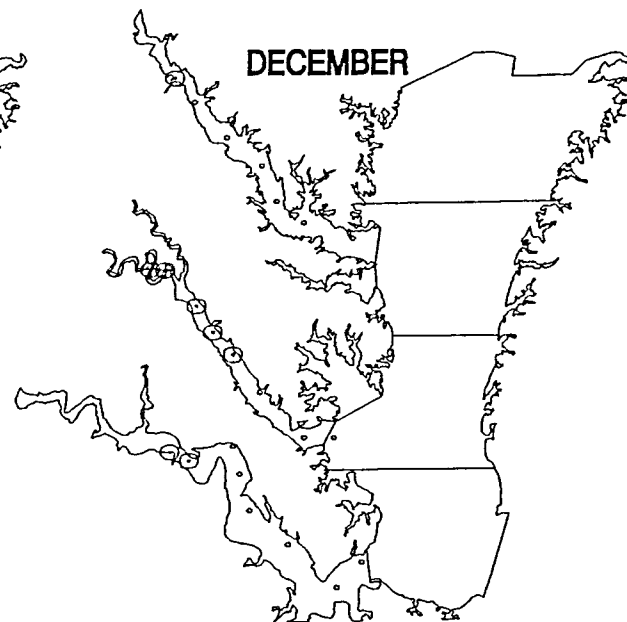
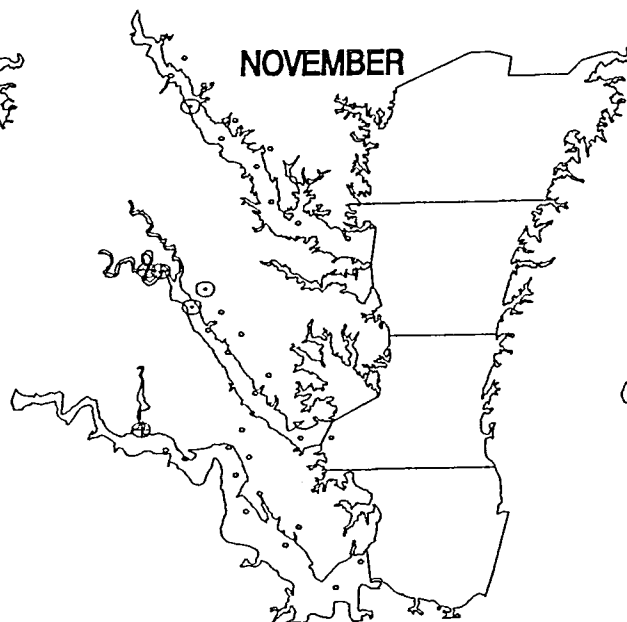
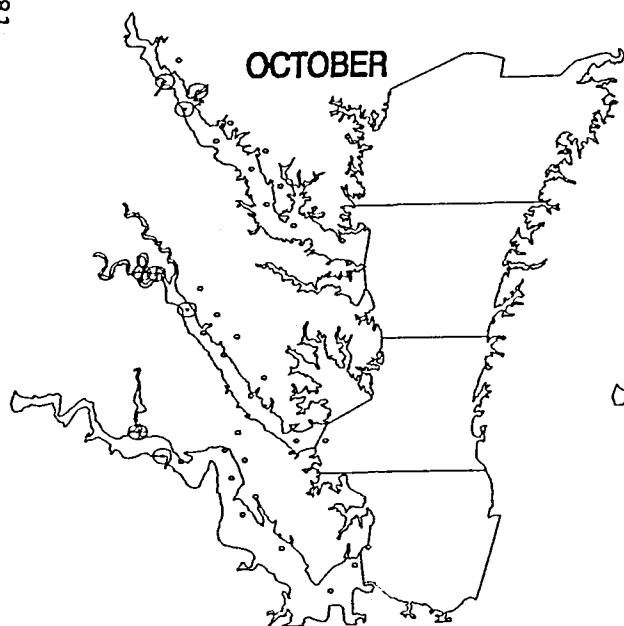
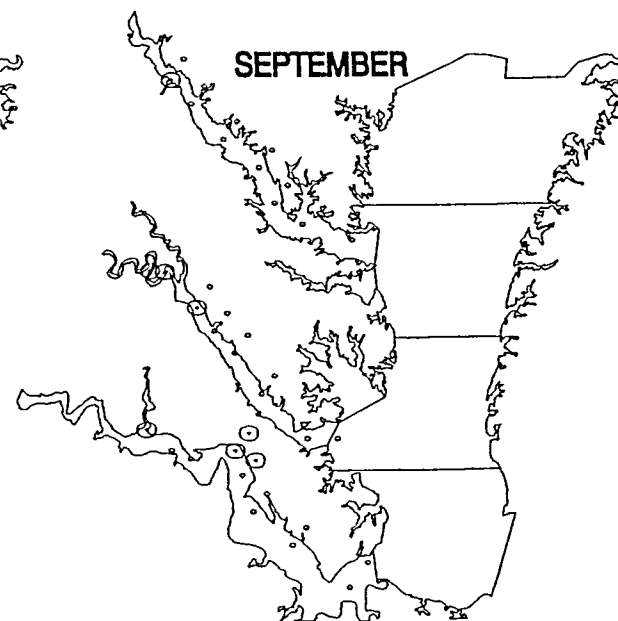
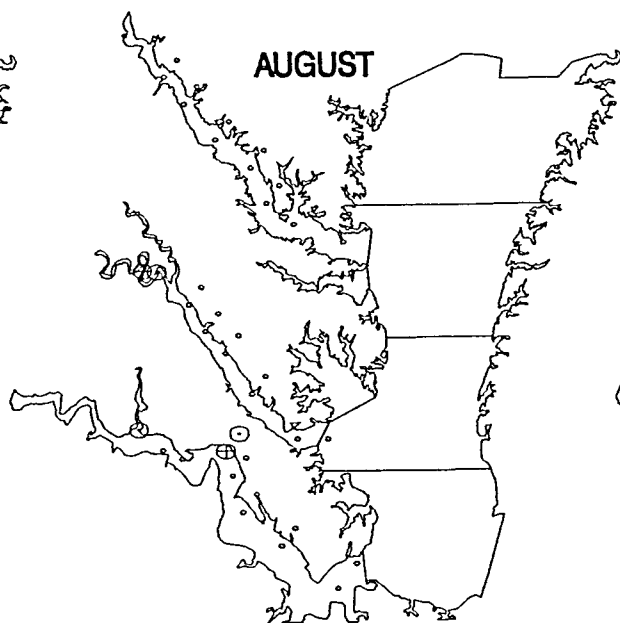
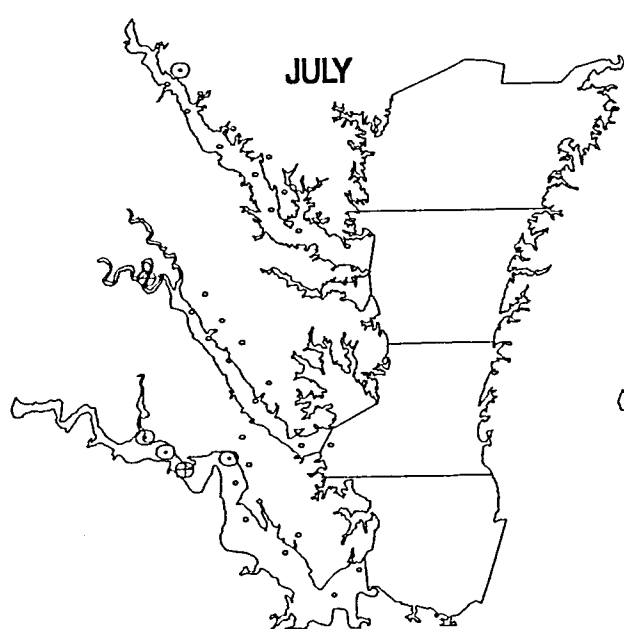


NUMBER CAUGHT: • = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊕ = 100 to 999 ● = ≥ 1,000

Figure 43

White Catfish





NUMBER CAUGHT: · = ZERO

⊙ = 1 to 9

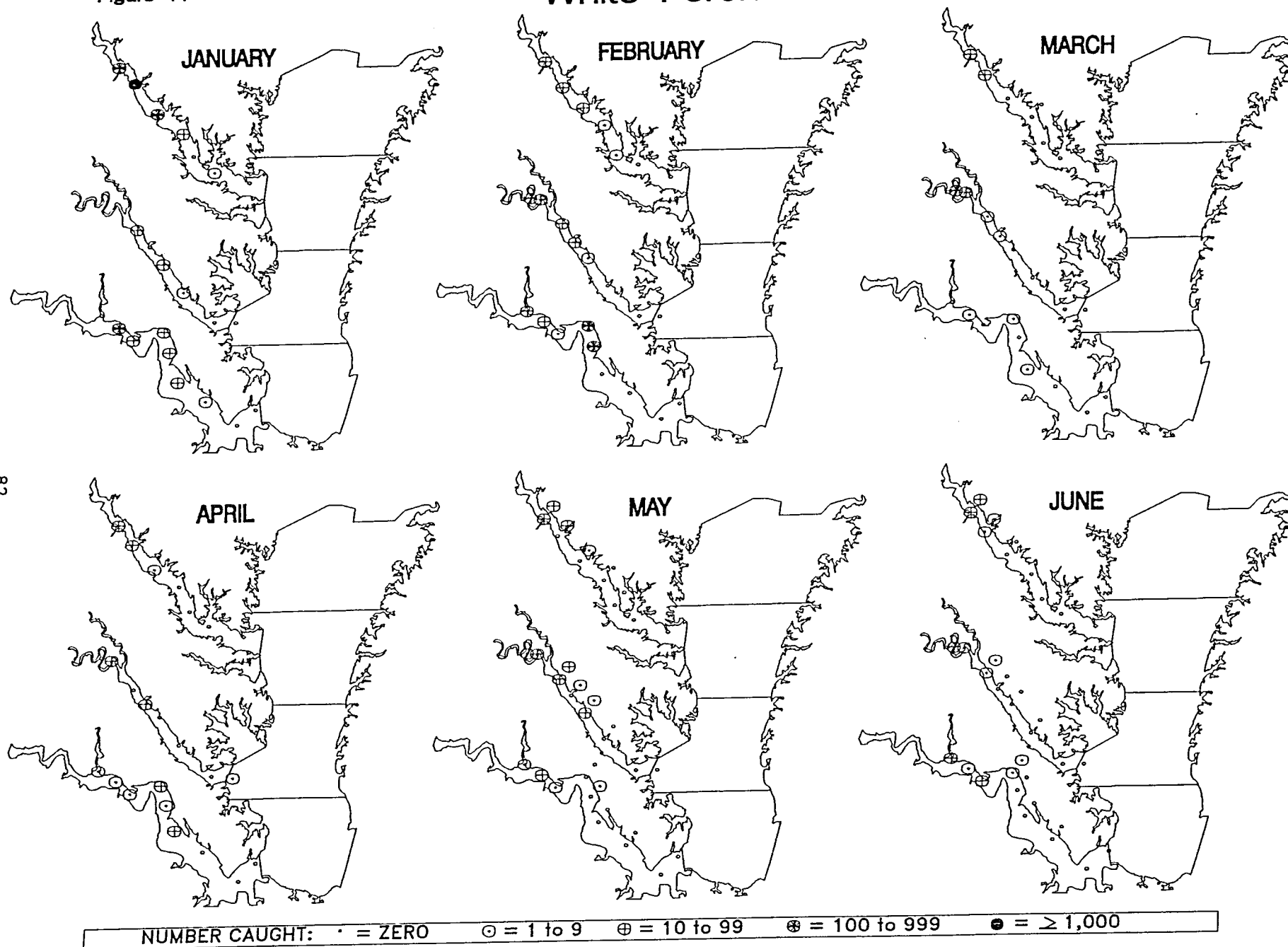
⊕ = 10 to 99

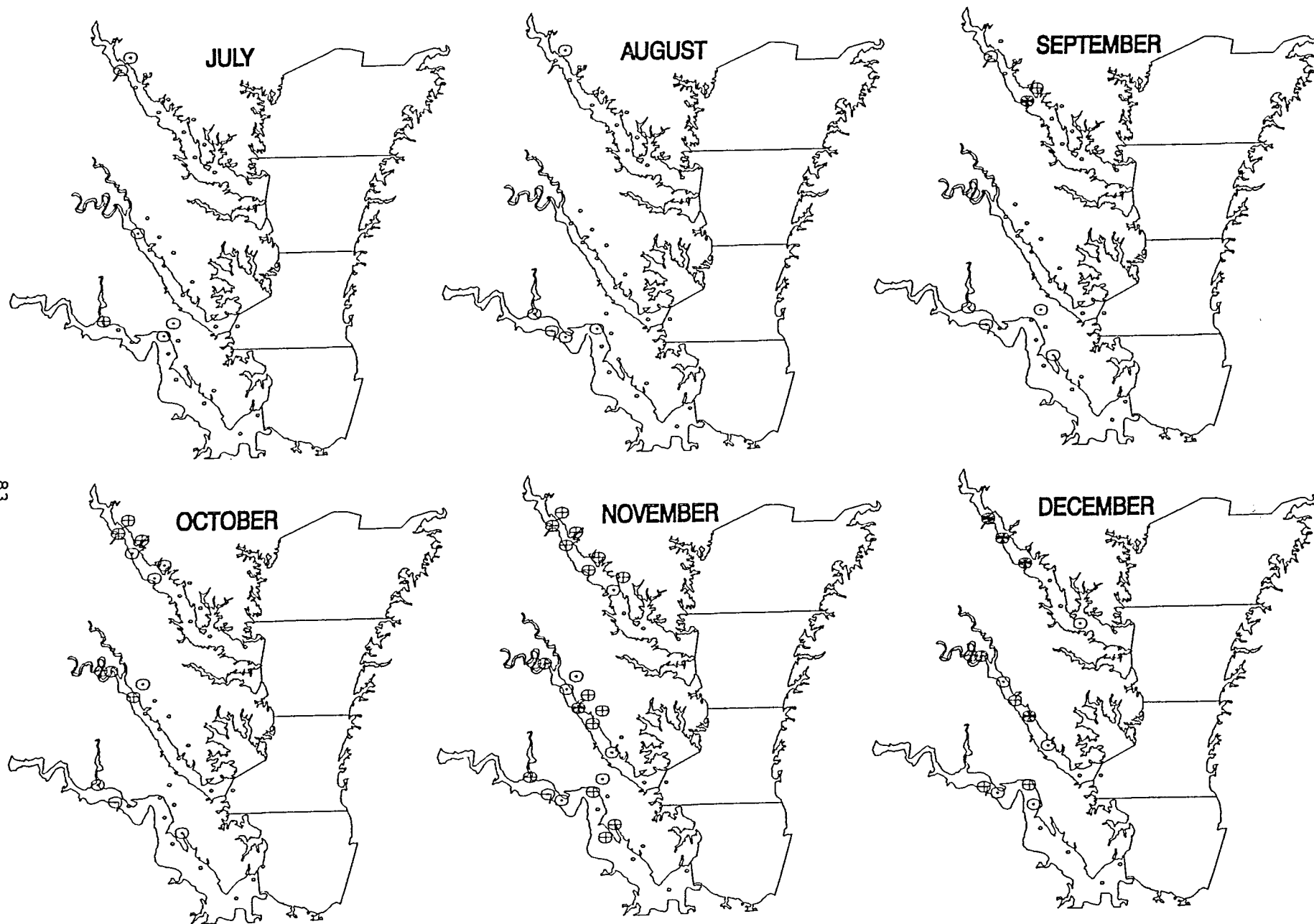
⊗ = 100 to 999

● = ≥ 1,000

Figure 44

White Perch





NUMBER CAUGHT: • = ZERO

⊙ = 1 to 9

⊕ = 10 to 99

⊗ = 100 to 999

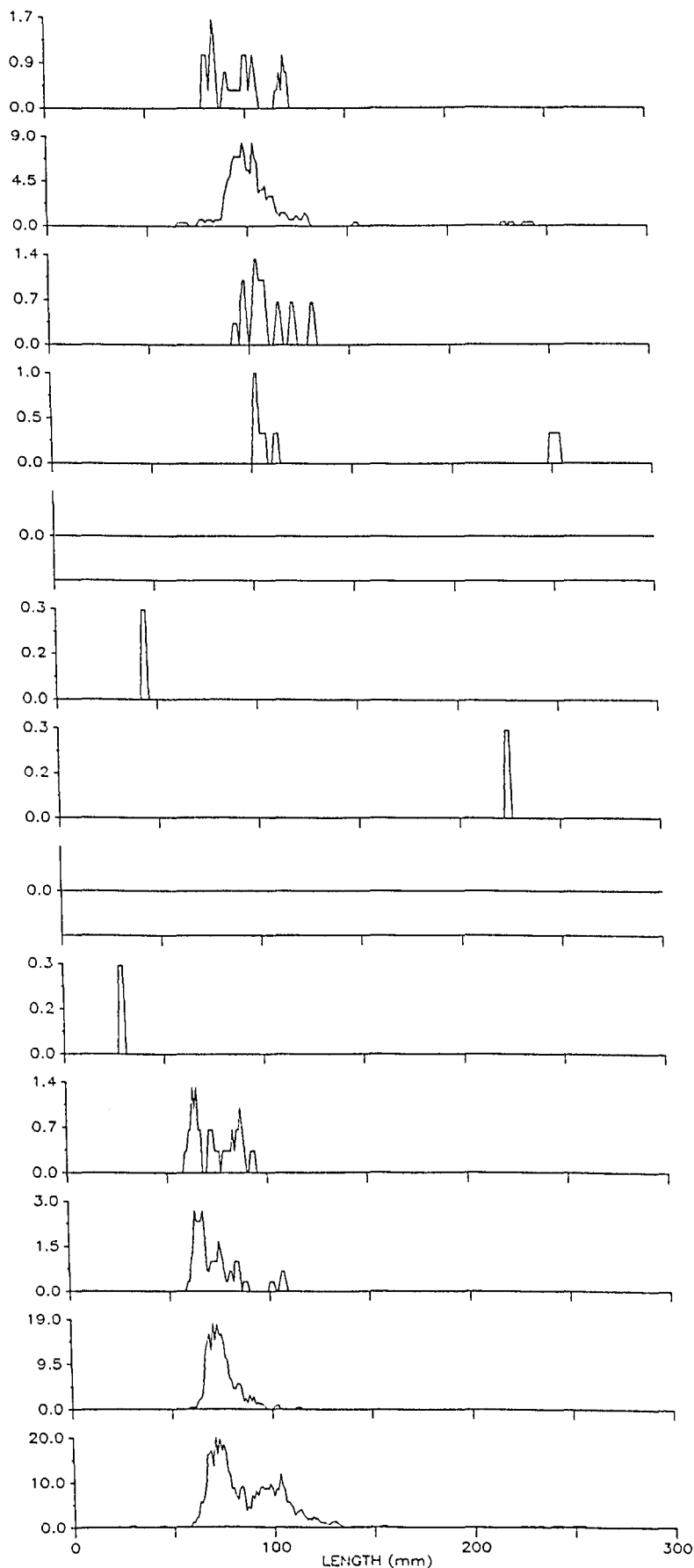
● = ≥ 1,000

Figures 45-75. Monthly length frequency summaries for the predominant species.

- Explanations:
- A. These figures represent all fish of each species presented from the river survey. Certain species which were not caught (or caught in limited numbers) in 1986, are included due to their presence in past reports.
 - B. For curve smoothing, the values plotted are a moving average of three of the number of fish caught at each millimeter length group; therefore fractional values can occur.
 - C. The bottom plot on each page is a summary of all fish for the entire year.
 - D. The values to the right of the month name on each plot represent the inclusive dates of the cruises during the month, in format year-month-day.
 - E. The catch per haul data presented here should not be used as a young-of-year (YOY) index. No distinction has been made in these calculations between YOY and older fish.

Figure 45.

Alewife



JANUARY 860120 - 860129
 NO. CGHT. - 22 MEAN SIZE - 94.3
 NO. MEAS. - 22 S.E. SIZE - 2.9
 NO. HAULS - 22 MIN. SIZE - 78
 CAT./HAUL - 1 MAX. SIZE - 118

FEBRUARY 860220 - 860225
 NO. CGHT. - 166 MEAN SIZE - 102.5
 NO. MEAS. - 166 S.E. SIZE - 1.8
 NO. HAULS - 24 MIN. SIZE - 64
 CAT./HAUL - 6.9 MAX. SIZE - 240

MARCH 860324 - 860326
 NO. CGHT. - 18 MEAN SIZE - 106.9
 NO. MEAS. - 18 S.E. SIZE - 2.7
 NO. HAULS - 25 MIN. SIZE - 91
 CAT./HAUL - 0.7 MAX. SIZE - 130

APRIL 860414 - 860416
 NO. CGHT. - 7 MEAN SIZE - 144.9
 NO. MEAS. - 7 S.E. SIZE - 27.1
 NO. HAULS - 24 MIN. SIZE - 100
 CAT./HAUL - 0.3 MAX. SIZE - 251

MAY 860519 - 860521
 NO. CGHT. - 0 MEAN SIZE - .
 NO. MEAS. - 0 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - .
 CAT./HAUL - 0 MAX. SIZE - .

JUNE 860601 - 860619
 NO. CGHT. - 1 MEAN SIZE - 42
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 35 MIN. SIZE - 42
 CAT./HAUL - 0 MAX. SIZE - 42

JULY 860721 - 860724
 NO. CGHT. - 1 MEAN SIZE - 222
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - 222
 CAT./HAUL - 0 MAX. SIZE - 222

AUGUST 860819 - 860822
 NO. CGHT. - 0 MEAN SIZE - .
 NO. MEAS. - 0 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - .
 CAT./HAUL - 0 MAX. SIZE - .

SEPTEMBER 860922 - 860926
 NO. CGHT. - 1 MEAN SIZE - 27
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - 27
 CAT./HAUL - 0 MAX. SIZE - 27

OCTOBER 861020 - 861024
 NO. CGHT. - 17 MEAN SIZE - 72.3
 NO. MEAS. - 17 S.E. SIZE - 2.6
 NO. HAULS - 37 MIN. SIZE - 58
 CAT./HAUL - 0.5 MAX. SIZE - 91

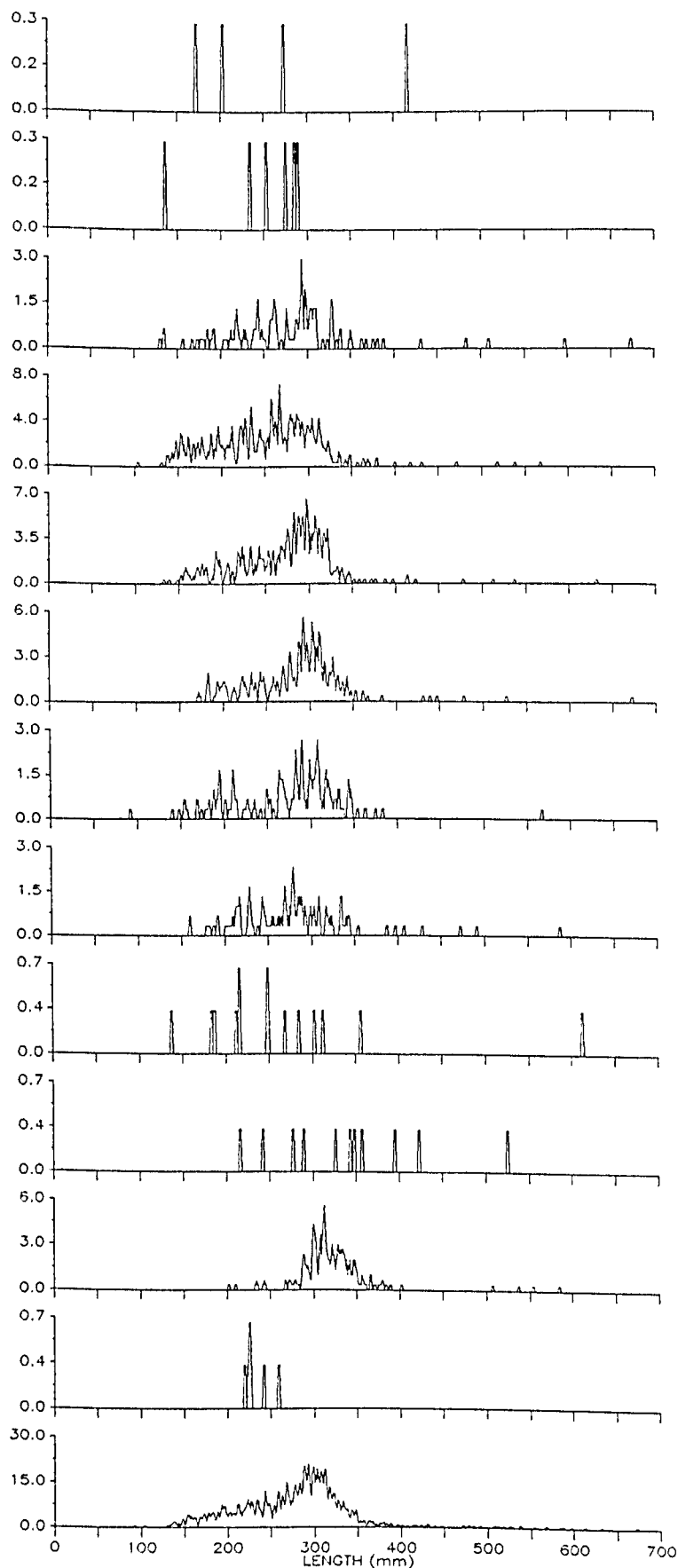
NOVEMBER 861117 - 861120
 NO. CGHT. - 36 MEAN SIZE - 71.6
 NO. MEAS. - 36 S.E. SIZE - 2
 NO. HAULS - 36 MIN. SIZE - 58
 CAT./HAUL - 1 MAX. SIZE - 105

DECEMBER 861215 - 861218
 NO. CGHT. - 244 MEAN SIZE - 73.1
 NO. MEAS. - 244 S.E. SIZE - 0.5
 NO. HAULS - 23 MIN. SIZE - 58
 CAT./HAUL - 10.6 MAX. SIZE - 111

JAN - DEC 860120 - 861218
 NO. CGHT. - 513 MEAN SIZE - 85.7
 NO. MEAS. - 513 S.E. SIZE - 1.1
 NO. HAULS - 374 MIN. SIZE - 27
 CAT./HAUL - 1.4 MAX. SIZE - 251

Figure 46.

American Eel



JANUARY	860120	-	860129	
NO. CGHT.	-	4	MEAN SIZE	- 264
NO. MEAS.	-	4	S.E. SIZE	- 54.3
NO. HAULS	-	22	MIN. SIZE	- 170
CAT./HAUL	-	0.2	MAX. SIZE	- 414

FEBRUARY	860220	-	860225	
NO. CGHT.	-	6	MEAN SIZE	- 243.3
NO. MEAS.	-	6	S.E. SIZE	- 23.5
NO. HAULS	-	24	MIN. SIZE	- 134
CAT./HAUL	-	0.3	MAX. SIZE	- 287

MARCH	860324	-	860326	
NO. CGHT.	-	112	MEAN SIZE	- 279.6
NO. MEAS.	-	112	S.E. SIZE	- 7.5
NO. HAULS	-	25	MIN. SIZE	- 128
CAT./HAUL	-	4.5	MAX. SIZE	- 671

APRIL	860414	-	860416	
NO. CGHT.	-	478	MEAN SIZE	- 250.2
NO. MEAS.	-	478	S.E. SIZE	- 2.8
NO. HAULS	-	24	MIN. SIZE	- 102
CAT./HAUL	-	19.9	MAX. SIZE	- 566

MAY	860519	-	860521	
NO. CGHT.	-	395	MEAN SIZE	- 273.4
NO. MEAS.	-	395	S.E. SIZE	- 3.3
NO. HAULS	-	37	MIN. SIZE	- 131
CAT./HAUL	-	10.7	MAX. SIZE	- 720

JUNE	860601	-	860619	
NO. CGHT.	-	267	MEAN SIZE	- 284.2
NO. MEAS.	-	267	S.E. SIZE	- 3.4
NO. HAULS	-	35	MIN. SIZE	- 169
CAT./HAUL	-	7.6	MAX. SIZE	- 670

JULY	860721	-	860724	
NO. CGHT.	-	135	MEAN SIZE	- 268.9
NO. MEAS.	-	135	S.E. SIZE	- 5.4
NO. HAULS	-	37	MIN. SIZE	- 90
CAT./HAUL	-	3.6	MAX. SIZE	- 565

AUGUST	860819	-	860822	
NO. CGHT.	-	102	MEAN SIZE	- 277.6
NO. MEAS.	-	102	S.E. SIZE	- 6.6
NO. HAULS	-	37	MIN. SIZE	- 157
CAT./HAUL	-	2.8	MAX. SIZE	- 585

SEPTEMBER	860922	-	860926	
NO. CGHT.	-	14	MEAN SIZE	- 268.2
NO. MEAS.	-	14	S.E. SIZE	- 30.6
NO. HAULS	-	37	MIN. SIZE	- 135
CAT./HAUL	-	0.4	MAX. SIZE	- 611

OCTOBER	861020	-	861024	
NO. CGHT.	-	11	MEAN SIZE	- 338.1
NO. MEAS.	-	11	S.E. SIZE	- 26.3
NO. HAULS	-	37	MIN. SIZE	- 214
CAT./HAUL	-	0.3	MAX. SIZE	- 523

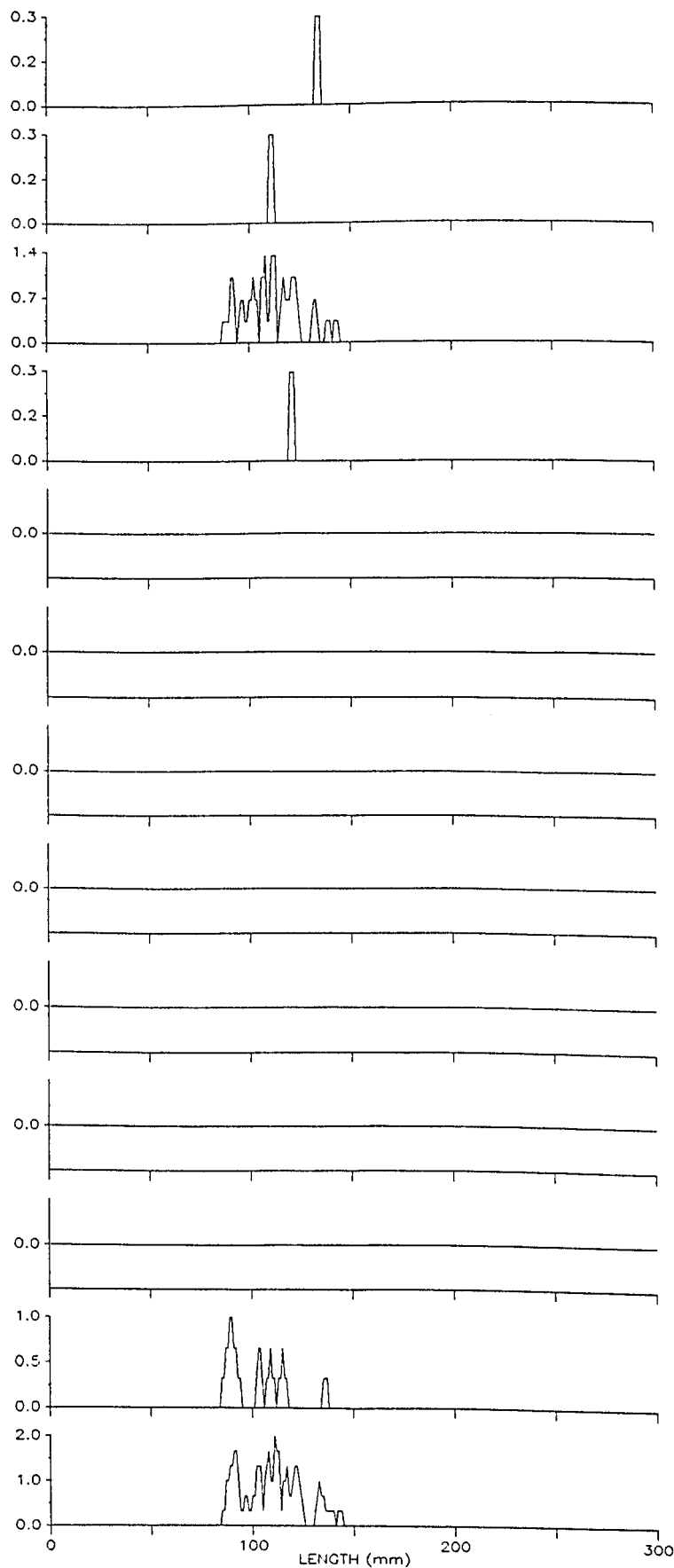
NOVEMBER	861117	-	861120	
NO. CGHT.	-	181	MEAN SIZE	- 324.2
NO. MEAS.	-	181	S.E. SIZE	- 4.8
NO. HAULS	-	36	MIN. SIZE	- 200
CAT./HAUL	-	5	MAX. SIZE	- 764

DECEMBER	861215	-	861218	
NO. CGHT.	-	6	MEAN SIZE	- 231
NO. MEAS.	-	6	S.E. SIZE	- 6
NO. HAULS	-	23	MIN. SIZE	- 218
CAT./HAUL	-	0.3	MAX. SIZE	- 257

JAN - DEC	860120	-	861218	
NO. CGHT.	-	1711	MEAN SIZE	- 274.4
NO. MEAS.	-	1711	S.E. SIZE	- 1.6
NO. HAULS	-	374	MIN. SIZE	- 90
CAT./HAUL	-	4.6	MAX. SIZE	- 764

Figure 47.

American Shad



JANUARY	860120 - 860129	
NO. CGHT.	1	MEAN SIZE - 132
NO. MEAS.	1	S.E. SIZE -
NO. HAULS	22	MIN. SIZE - 132
CAT./HAUL	0	MAX. SIZE - 132

FEBRUARY	860220 - 860225	
NO. CGHT.	1	MEAN SIZE - 109
NO. MEAS.	1	S.E. SIZE -
NO. HAULS	24	MIN. SIZE - 109
CAT./HAUL	0	MAX. SIZE - 109

MARCH	860324 - 860326	
NO. CGHT.	30	MEAN SIZE - 109.6
NO. MEAS.	30	S.E. SIZE - 2.6
NO. HAULS	25	MIN. SIZE - 86
CAT./HAUL	1.2	MAX. SIZE - 141

APRIL	860414 - 860416	
NO. CGHT.	1	MEAN SIZE - 119
NO. MEAS.	1	S.E. SIZE -
NO. HAULS	24	MIN. SIZE - 119
CAT./HAUL	0	MAX. SIZE - 119

MAY	860519 - 860521	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	37	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

JUNE	860601 - 860619	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	35	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

JULY	860721 - 860724	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	37	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

AUGUST	860819 - 860822	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	37	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

SEPTEMBER	860922 - 860926	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	37	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

OCTOBER	861020 - 861024	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	37	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

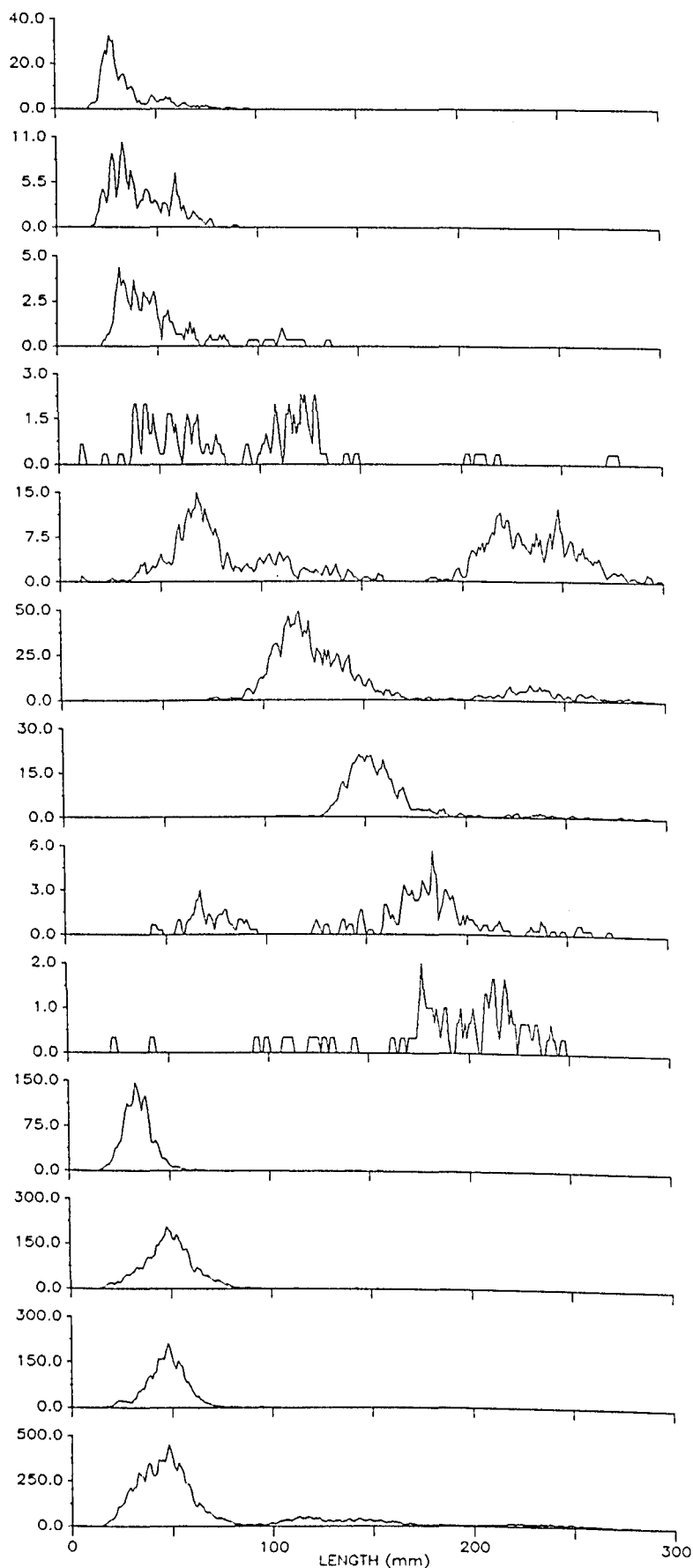
NOVEMBER	861117 - 861120	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	36	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

DECEMBER	861215 - 861218	
NO. CGHT.	13	MEAN SIZE - 100.2
NO. MEAS.	13	S.E. SIZE - 4.1
NO. HAULS	23	MIN. SIZE - 84
CAT./HAUL	0.6	MAX. SIZE - 134

JAN - DEC	860120 - 861218	
NO. CGHT.	46	MEAN SIZE - 107.6
NO. MEAS.	46	S.E. SIZE - 2.2
NO. HAULS	374	MIN. SIZE - 84
CAT./HAUL	0.1	MAX. SIZE - 141

Figure 48.

Atlantic Croaker



JANUARY 860120 - 860129
 NO. CGHT. - 440 MEAN SIZE - 33.4
 NO. MEAS. - 440 S.E. SIZE - 0.7
 NO. HAULS - 22 MIN. SIZE - 16
 CAT./HAUL - 20 MAX. SIZE - 93

FEBRUARY 860220 - 860225
 NO. CGHT. - 209 MEAN SIZE - 39.9
 NO. MEAS. - 209 S.E. SIZE - 1
 NO. HAULS - 24 MIN. SIZE - 17
 CAT./HAUL - 8.7 MAX. SIZE - 87

MARCH 860324 - 860326
 NO. CGHT. - 101 MEAN SIZE - 50
 NO. MEAS. - 101 S.E. SIZE - 2.5
 NO. HAULS - 25 MIN. SIZE - 22
 CAT./HAUL - 4 MAX. SIZE - 133

APRIL 860414 - 860416
 NO. CGHT. - 96 MEAN SIZE - 91.9
 NO. MEAS. - 96 S.E. SIZE - 5
 NO. HAULS - 24 MIN. SIZE - 21
 CAT./HAUL - 4 MAX. SIZE - 275

MAY 860519 - 860521
 NO. CGHT. - 928 MEAN SIZE - 157.2
 NO. MEAS. - 928 S.E. SIZE - 2.7
 NO. HAULS - 37 MIN. SIZE - 23
 CAT./HAUL - 25.1 MAX. SIZE - 313

JUNE 860601 - 860619
 NO. CGHT. - 1796 MEAN SIZE - 138.3
 NO. MEAS. - 1796 S.E. SIZE - 1.1
 NO. HAULS - 35 MIN. SIZE - 72
 CAT./HAUL - 51.3 MAX. SIZE - 349

JULY 860721 - 860724
 NO. CGHT. - 630 MEAN SIZE - 158.5
 NO. MEAS. - 630 S.E. SIZE - 1.1
 NO. HAULS - 37 MIN. SIZE - 38
 CAT./HAUL - 17 MAX. SIZE - 346

AUGUST 860819 - 860822
 NO. CGHT. - 181 MEAN SIZE - 153.4
 NO. MEAS. - 181 S.E. SIZE - 4.1
 NO. HAULS - 37 MIN. SIZE - 42
 CAT./HAUL - 4.9 MAX. SIZE - 269

SEPTEMBER 860922 - 860926
 NO. CGHT. - 64 MEAN SIZE - 183.6
 NO. MEAS. - 64 S.E. SIZE - 5.7
 NO. HAULS - 37 MIN. SIZE - 21
 CAT./HAUL - 1.7 MAX. SIZE - 245

OCTOBER 861020 - 861024
 NO. CGHT. - 2200 MEAN SIZE - 33.8
 NO. MEAS. - 2200 S.E. SIZE - 0.3
 NO. HAULS - 37 MIN. SIZE - 12
 CAT./HAUL - 59.5 MAX. SIZE - 212

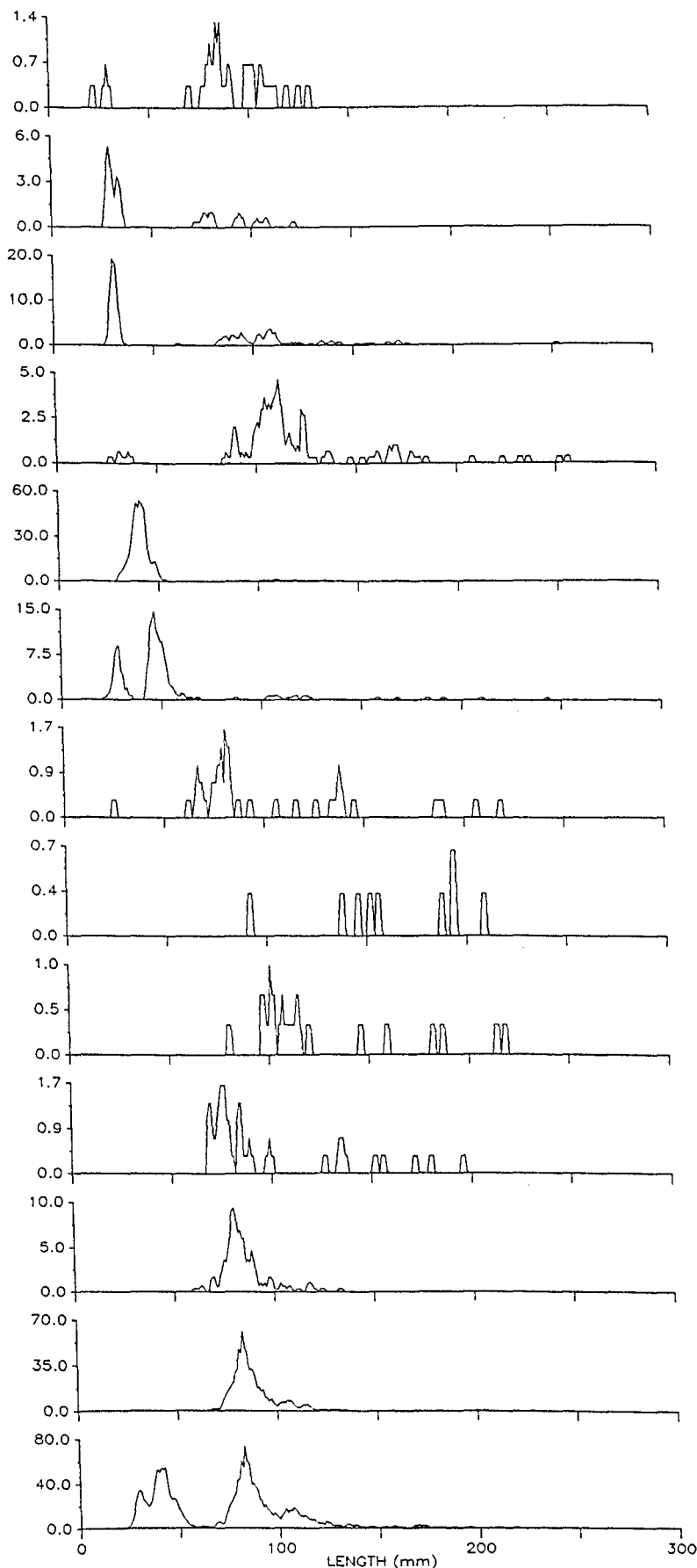
NOVEMBER 861117 - 861120
 NO. CGHT. - 4906 MEAN SIZE - 47.2
 NO. MEAS. - 4906 S.E. SIZE - 0.2
 NO. HAULS - 36 MIN. SIZE - 13
 CAT./HAUL - 136.3 MAX. SIZE - 173

DECEMBER 861215 - 861218
 NO. CGHT. - 3902 MEAN SIZE - 45.2
 NO. MEAS. - 3902 S.E. SIZE - 0.2
 NO. HAULS - 23 MIN. SIZE - 13
 CAT./HAUL - 169.7 MAX. SIZE - 126

JAN - DEC 860120 - 861218
 NO. CGHT. - 15453 MEAN SIZE - 68.1
 NO. MEAS. - 15453 S.E. SIZE - 0.4
 NO. HAULS - 374 MIN. SIZE - 12
 CAT./HAUL - 41.3 MAX. SIZE - 349

Figure 49.

Atlantic Menhaden



JANUARY 860120 - 860129			
NO. CGHT.	- 26	MEAN SIZE	- 86
NO. MEAS.	- 26	S.E. SIZE	- 5.3
NO. HAULS	- 22	MIN. SIZE	- 20
CAT./HAUL	- 1.2	MAX. SIZE	- 128

FEBRUARY 860220 - 860225			
NO. CGHT.	- 48	MEAN SIZE	- 49.8
NO. MEAS.	- 48	S.E. SIZE	- 4.3
NO. HAULS	- 24	MIN. SIZE	- 25
CAT./HAUL	- 2	MAX. SIZE	- 119

MARCH 860324 - 860326			
NO. CGHT.	- 174	MEAN SIZE	- 68.9
NO. MEAS.	- 174	S.E. SIZE	- 3.5
NO. HAULS	- 25	MIN. SIZE	- 25
CAT./HAUL	- 7	MAX. SIZE	- 250

APRIL 860414 - 860416			
NO. CGHT.	- 107	MEAN SIZE	- 118.7
NO. MEAS.	- 107	S.E. SIZE	- 3.9
NO. HAULS	- 24	MIN. SIZE	- 25
CAT./HAUL	- 4.5	MAX. SIZE	- 254

MAY 860519 - 860521			
NO. CGHT.	- 555	MEAN SIZE	- 43.4
NO. MEAS.	- 555	S.E. SIZE	- 1
NO. HAULS	- 37	MIN. SIZE	- 28
CAT./HAUL	- 15	MAX. SIZE	- 288

JUNE 860601 - 860619			
NO. CGHT.	- 188	MEAN SIZE	- 50.2
NO. MEAS.	- 188	S.E. SIZE	- 2.4
NO. HAULS	- 35	MIN. SIZE	- 20
CAT./HAUL	- 5.4	MAX. SIZE	- 241

JULY 860721 - 860724			
NO. CGHT.	- 31	MEAN SIZE	- 102.8
NO. MEAS.	- 31	S.E. SIZE	- 8.3
NO. HAULS	- 37	MIN. SIZE	- 23
CAT./HAUL	- 0.8	MAX. SIZE	- 216

AUGUST 860819 - 860822			
NO. CGHT.	- 9	MEAN SIZE	- 161.2
NO. MEAS.	- 9	S.E. SIZE	- 12.2
NO. HAULS	- 37	MIN. SIZE	- 90
CAT./HAUL	- 0.2	MAX. SIZE	- 207

SEPTEMBER 860922 - 860926			
NO. CGHT.	- 18	MEAN SIZE	- 129
NO. MEAS.	- 18	S.E. SIZE	- 10.1
NO. HAULS	- 37	MIN. SIZE	- 78
CAT./HAUL	- 0.5	MAX. SIZE	- 216

OCTOBER 861020 - 861024			
NO. CGHT.	- 32	MEAN SIZE	- 98.4
NO. MEAS.	- 32	S.E. SIZE	- 6.6
NO. HAULS	- 37	MIN. SIZE	- 67
CAT./HAUL	- 0.9	MAX. SIZE	- 194

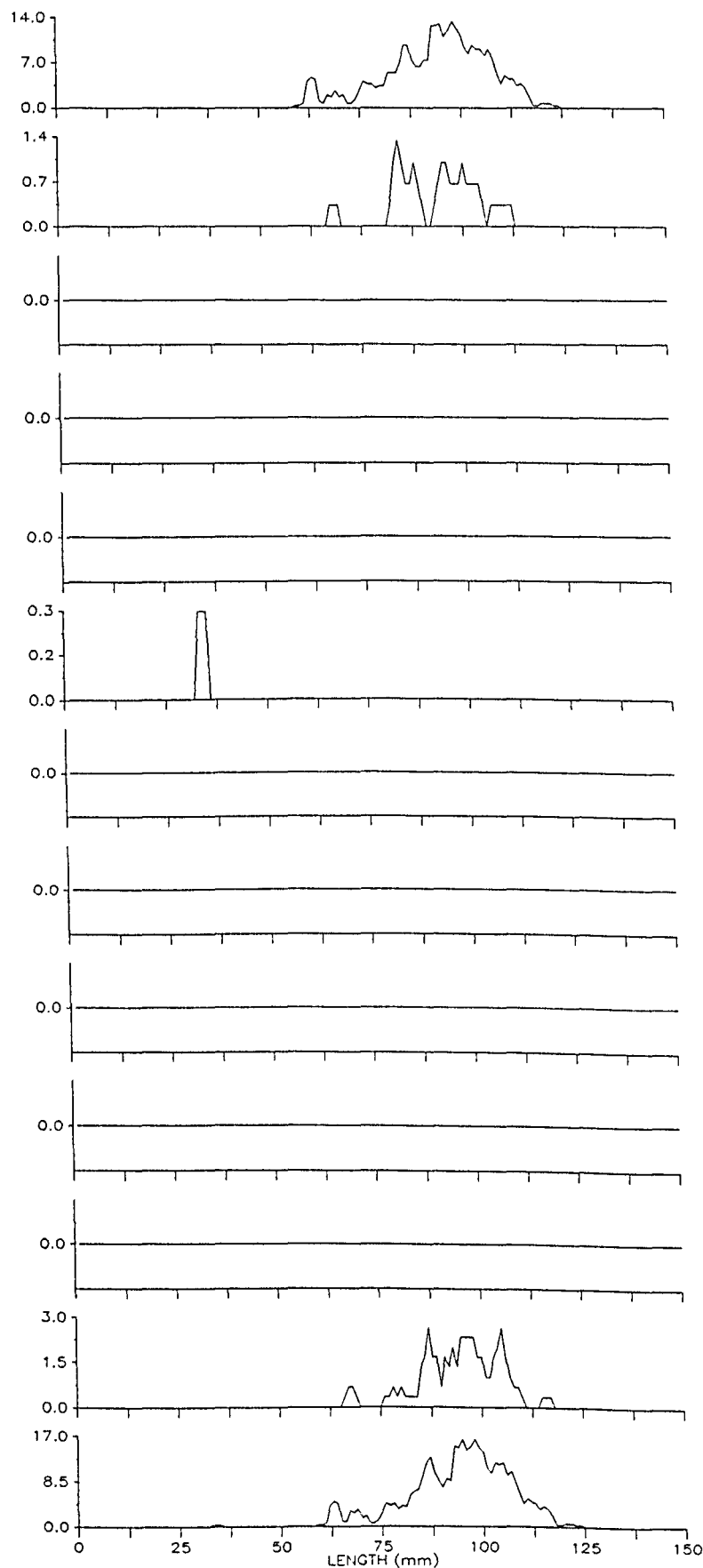
NOVEMBER 861117 - 861120			
NO. CGHT.	- 126	MEAN SIZE	- 82.8
NO. MEAS.	- 126	S.E. SIZE	- 1.1
NO. HAULS	- 36	MIN. SIZE	- 58
CAT./HAUL	- 3.5	MAX. SIZE	- 131

DECEMBER 861215 - 861218			
NO. CGHT.	- 758	MEAN SIZE	- 86.4
NO. MEAS.	- 758	S.E. SIZE	- 0.5
NO. HAULS	- 23	MIN. SIZE	- 64
CAT./HAUL	- 33	MAX. SIZE	- 225

JAN - DEC 860120 - 861218			
NO. CGHT.	- 2072	MEAN SIZE	- 71.9
NO. MEAS.	- 2072	S.E. SIZE	- 0.8
NO. HAULS	- 374	MIN. SIZE	- 20
CAT./HAUL	- 5.5	MAX. SIZE	- 288

Figure 50.

Atlantic Silverside



JANUARY	860120 - 860129	
NO. CGHT.	- 335	MEAN SIZE - 92
NO. MEAS.	- 335	S.E. SIZE - 0.7
NO. HAULS	- 22	MIN. SIZE - 58
CAT./HAUL	- 15.2	MAX. SIZE - 121

FEBRUARY	860220 - 860225	
NO. CGHT.	- 19	MEAN SIZE - 91.5
NO. MEAS.	- 19	S.E. SIZE - 2.4
NO. HAULS	- 24	MIN. SIZE - 66
CAT./HAUL	- 0.8	MAX. SIZE - 109

MARCH	860324 - 860326	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 25	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

APRIL	860414 - 860416	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 24	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

MAY	860519 - 860521	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

JUNE	860601 - 860619	
NO. CGHT.	- 1	MEAN SIZE - 32
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 35	MIN. SIZE - 32
CAT./HAUL	- 0	MAX. SIZE - 32

JULY	860721 - 860724	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

AUGUST	860819 - 860822	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

OCTOBER	861020 - 861024	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

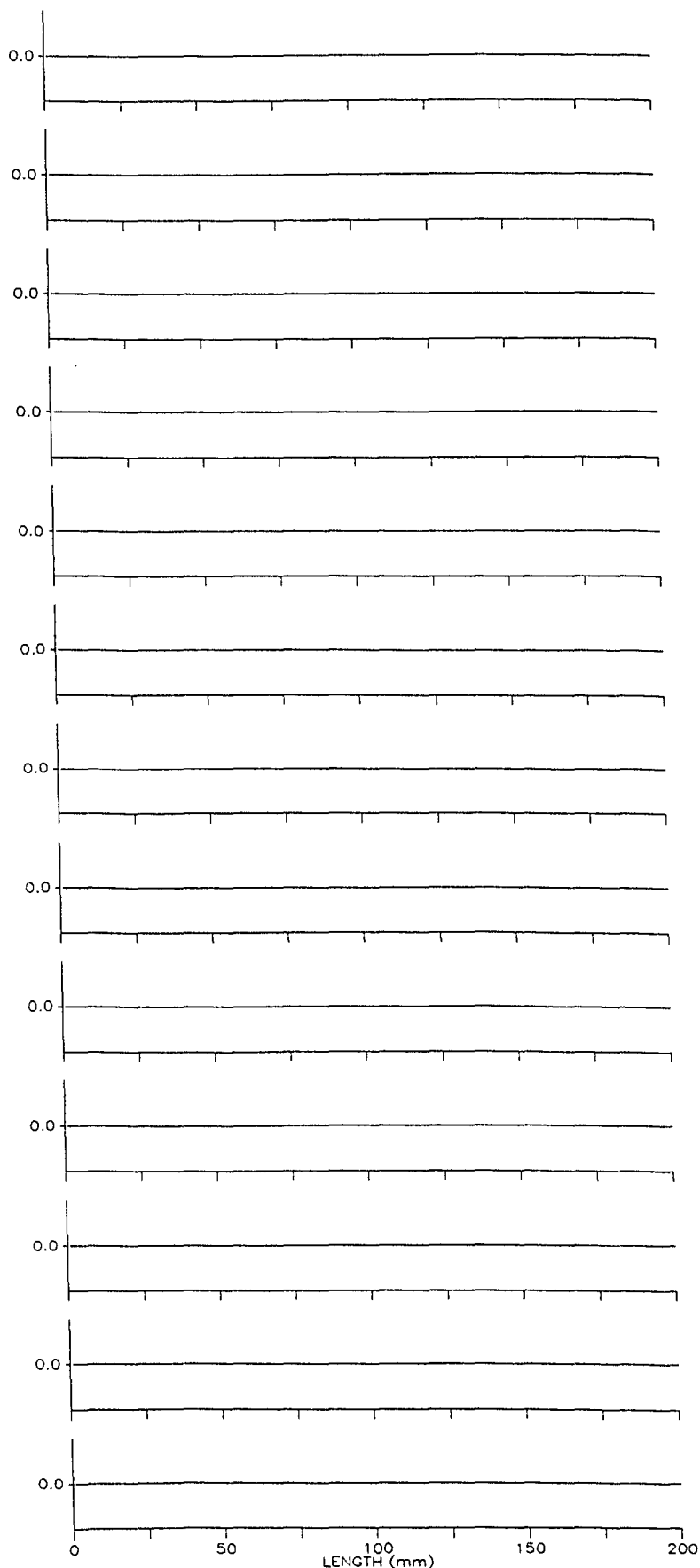
NOVEMBER	861117 - 861120	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 36	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

DECEMBER	861215 - 861218	
NO. CGHT.	- 48	MEAN SIZE - 92.4
NO. MEAS.	- 48	S.E. SIZE - 1.5
NO. HAULS	- 23	MIN. SIZE - 65
CAT./HAUL	- 2.1	MAX. SIZE - 114

JAN - DEC	860120 - 861218	
NO. CGHT.	- 403	MEAN SIZE - 91.8
NO. MEAS.	- 403	S.E. SIZE - 0.6
NO. HAULS	- 374	MIN. SIZE - 32
CAT./HAUL	- 1.1	MAX. SIZE - 121

Figure 51.

Atlantic Thread Herring



JANUARY 860120 - 860129
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 22 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

FEBRUARY 860220 - 860225
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MARCH 860324 - 860326
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 25 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

APRIL 860414 - 860416
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MAY 860519 - 860521
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JUNE 860601 - 860619
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 35 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JULY 860721 - 860724
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

AUGUST 860819 - 860822
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

SEPTEMBER 860922 - 860926
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

OCTOBER 861020 - 861024
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

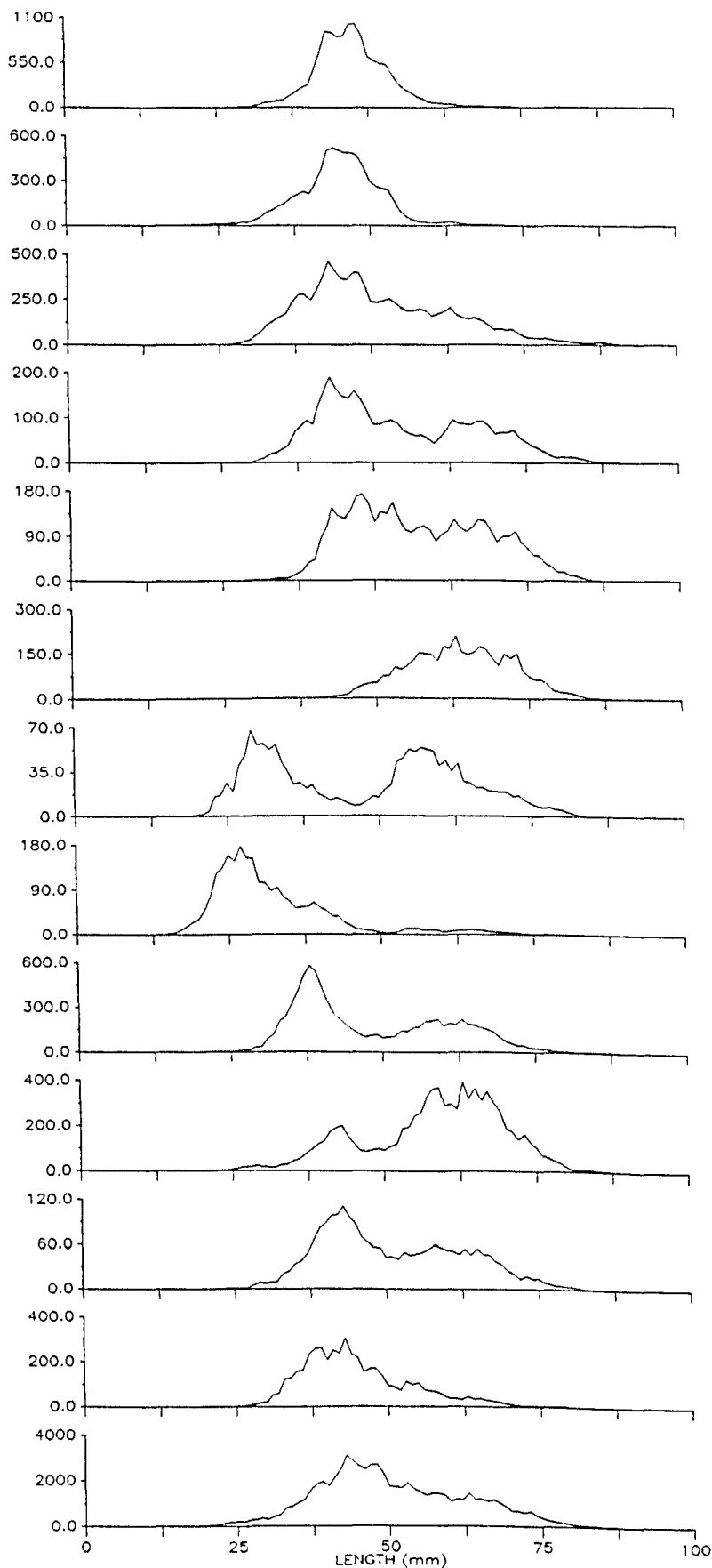
NOVEMBER 861117 - 861120
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 36 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

DECEMBER 861215 - 861218
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 23 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JAN - DEC 860120 - 861218
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 374 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

Figure 52.

Bay Anchovy



JANUARY 860120 - 860129
 NO. CGHT. - 51098 MEAN SIZE - 45.1
 NO. MEAS. - 12683 S.E. SIZE - 0.1
 NO. HAULS - 22 MIN. SIZE - 16
 CAT./HAUL - 2322.6 MAX. SIZE - 78

FEBRUARY 860220 - 860225
 NO. CGHT. - 7179 MEAN SIZE - 43.1
 NO. MEAS. - 7179 S.E. SIZE - 0.1
 NO. HAULS - 24 MIN. SIZE - 17
 CAT./HAUL - 299.1 MAX. SIZE - 78

MARCH 860324 - 860326
 NO. CGHT. - 9663 MEAN SIZE - 49
 NO. MEAS. - 9663 S.E. SIZE - 0.1
 NO. HAULS - 25 MIN. SIZE - 24
 CAT./HAUL - 386.5 MAX. SIZE - 89

APRIL 860414 - 860416
 NO. CGHT. - 3888 MEAN SIZE - 52
 NO. MEAS. - 3888 S.E. SIZE - 0.2
 NO. HAULS - 24 MIN. SIZE - 26
 CAT./HAUL - 162 MAX. SIZE - 87

MAY 860519 - 860521
 NO. CGHT. - 4314 MEAN SIZE - 55.2
 NO. MEAS. - 4314 S.E. SIZE - 0.2
 NO. HAULS - 37 MIN. SIZE - 27
 CAT./HAUL - 116.6 MAX. SIZE - 95

JUNE 860601 - 860619
 NO. CGHT. - 3836 MEAN SIZE - 61.6
 NO. MEAS. - 3836 S.E. SIZE - 0.1
 NO. HAULS - 35 MIN. SIZE - 37
 CAT./HAUL - 109.6 MAX. SIZE - 94

JULY 860721 - 860724
 NO. CGHT. - 1606 MEAN SIZE - 45.9
 NO. MEAS. - 1606 S.E. SIZE - 0.4
 NO. HAULS - 37 MIN. SIZE - 18
 CAT./HAUL - 43.4 MAX. SIZE - 85

AUGUST 860819 - 860822
 NO. CGHT. - 6008 MEAN SIZE - 30.2
 NO. MEAS. - 2458 S.E. SIZE - 0.2
 NO. HAULS - 37 MIN. SIZE - 13
 CAT./HAUL - 162.4 MAX. SIZE - 89

SEPTEMBER 860922 - 860926
 NO. CGHT. - 8708 MEAN SIZE - 46.1
 NO. MEAS. - 8708 S.E. SIZE - 0.1
 NO. HAULS - 37 MIN. SIZE - 18
 CAT./HAUL - 235.4 MAX. SIZE - 90

OCTOBER 861020 - 861024
 NO. CGHT. - 8548 MEAN SIZE - 56.2
 NO. MEAS. - 8548 S.E. SIZE - 0.1
 NO. HAULS - 37 MIN. SIZE - 17
 CAT./HAUL - 231 MAX. SIZE - 92

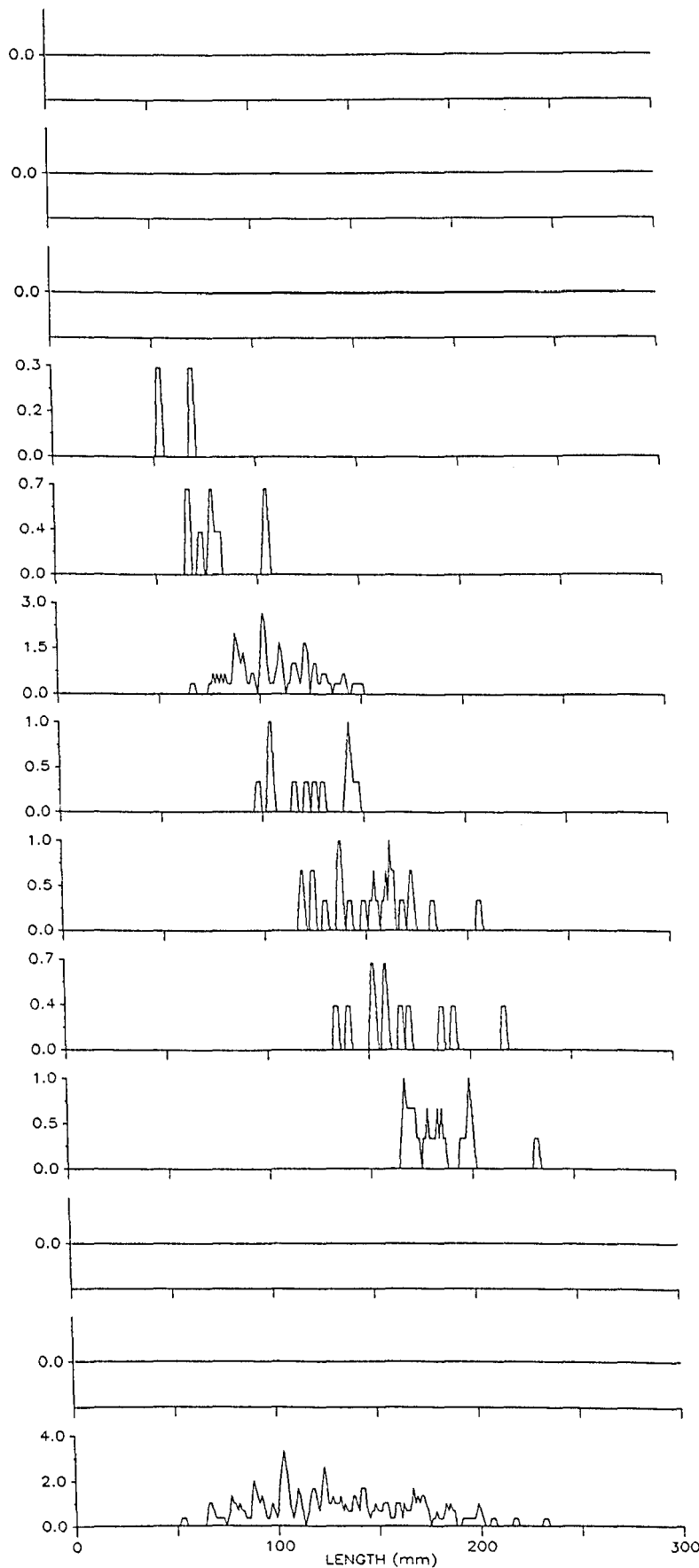
NOVEMBER 861117 - 861120
 NO. CGHT. - 2279 MEAN SIZE - 49
 NO. MEAS. - 2279 S.E. SIZE - 0.2
 NO. HAULS - 36 MIN. SIZE - 22
 CAT./HAUL - 63.3 MAX. SIZE - 89

DECEMBER 861215 - 861218
 NO. CGHT. - 4730 MEAN SIZE - 42.7
 NO. MEAS. - 4730 S.E. SIZE - 0.1
 NO. HAULS - 23 MIN. SIZE - 24
 CAT./HAUL - 205.7 MAX. SIZE - 81

JAN - DEC 860120 - 861218
 NO. CGHT. - 411857 MEAN SIZE - 48.3
 NO. MEAS. - 69892 S.E. SIZE - 0
 NO. HAULS - 374 MIN. SIZE - 13
 CAT./HAUL - 299.1 MAX. SIZE - 95

Figure 53.

Black Seabass



JANUARY 860120 - 860129
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 22 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

FEBRUARY 860220 - 860225
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MARCH 860324 - 860326
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 25 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

APRIL 860414 - 860416
 NO. CGHT. - 2 MEAN SIZE - 59
 NO. MEAS. - 2 S.E. SIZE - 8
 NO. HAULS - 24 MIN. SIZE - 51
 CAT./HAUL - 0.1 MAX. SIZE - 67

MAY 860519 - 860521
 NO. CGHT. - 8 MEAN SIZE - 79.1
 NO. MEAS. - 8 S.E. SIZE - 5.4
 NO. HAULS - 37 MIN. SIZE - 64
 CAT./HAUL - 0.2 MAX. SIZE - 103

JUNE 860601 - 860619
 NO. CGHT. - 54 MEAN SIZE - 106
 NO. MEAS. - 54 S.E. SIZE - 2.7
 NO. HAULS - 35 MIN. SIZE - 65
 CAT./HAUL - 1.5 MAX. SIZE - 148

JULY 860721 - 860724
 NO. CGHT. - 12 MEAN SIZE - 121.4
 NO. MEAS. - 12 S.E. SIZE - 5.2
 NO. HAULS - 37 MIN. SIZE - 96
 CAT./HAUL - 0.3 MAX. SIZE - 145

AUGUST 860819 - 860822
 NO. CGHT. - 21 MEAN SIZE - 149.1
 NO. MEAS. - 21 S.E. SIZE - 5
 NO. HAULS - 37 MIN. SIZE - 116
 CAT./HAUL - 0.6 MAX. SIZE - 204

SEPTEMBER 860922 - 860926
 NO. CGHT. - 11 MEAN SIZE - 164.1
 NO. MEAS. - 11 S.E. SIZE - 7.3
 NO. HAULS - 37 MIN. SIZE - 132
 CAT./HAUL - 0.3 MAX. SIZE - 215

OCTOBER 861020 - 861024
 NO. CGHT. - 16 MEAN SIZE - 182.2
 NO. MEAS. - 16 S.E. SIZE - 4.3
 NO. HAULS - 37 MIN. SIZE - 164
 CAT./HAUL - 0.4 MAX. SIZE - 230

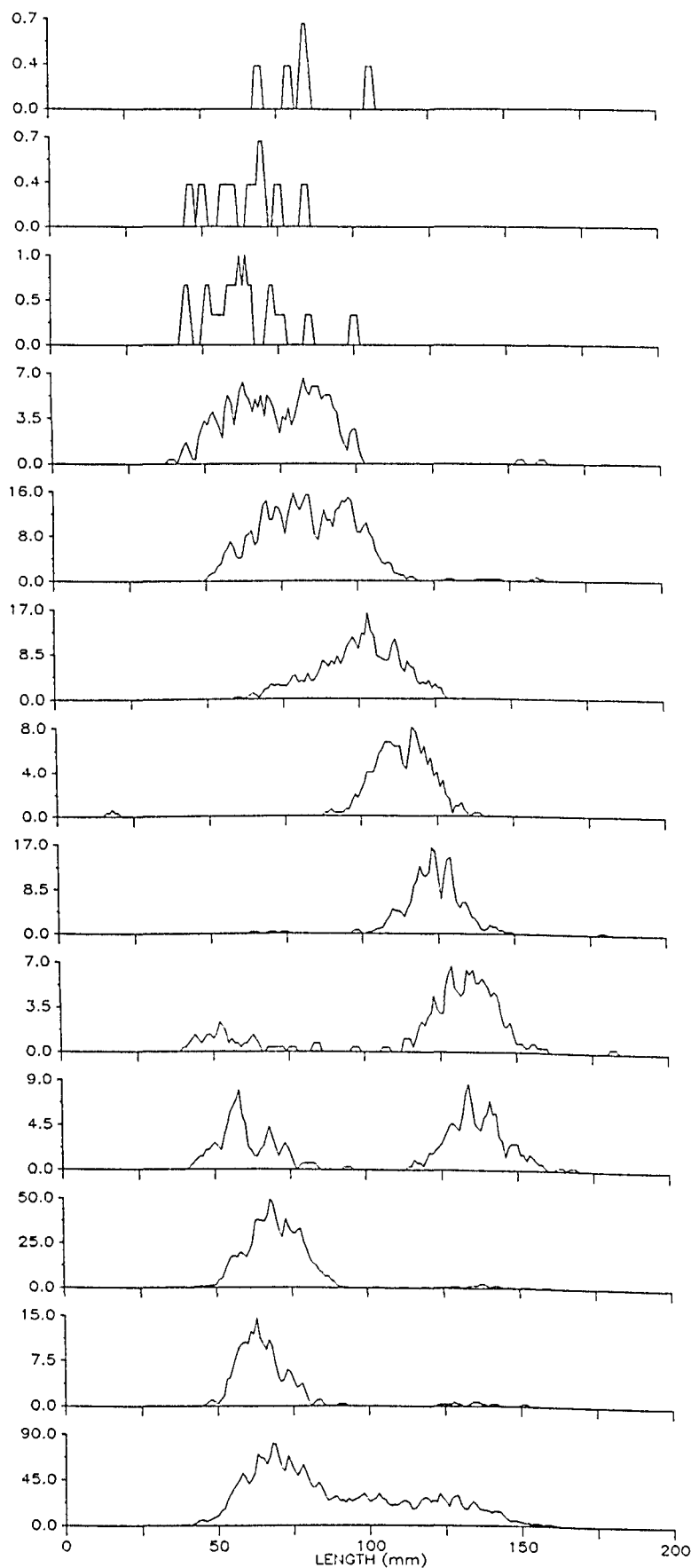
NOVEMBER 861117 - 861120
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 36 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

DECEMBER 861215 - 861218
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 23 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JAN - DEC 860120 - 861218
 NO. CGHT. - 124 MEAN SIZE - 127.3
 NO. MEAS. - 124 S.E. SIZE - 3.4
 NO. HAULS - 374 MIN. SIZE - 51
 CAT./HAUL - 0.3 MAX. SIZE - 230

Figure 54.

Blackcheek Tonguefish



JANUARY	860120 - 860129	
NO. CGHT.	- 5	MEAN SIZE - 82.6
NO. MEAS.	- 5	S.E. SIZE - 6.1
NO. HAULS	- 22	MIN. SIZE - 67
CAT./HAUL	- 0.2	MAX. SIZE - 104

FEBRUARY	860220 - 860225	
NO. CGHT.	- 9	MEAN SIZE - 62.1
NO. MEAS.	- 9	S.E. SIZE - 4
NO. HAULS	- 24	MIN. SIZE - 44
CAT./HAUL	- 0.4	MAX. SIZE - 82

MARCH	860324 - 860326	
NO. CGHT.	- 17	MEAN SIZE - 61.9
NO. MEAS.	- 17	S.E. SIZE - 3.5
NO. HAULS	- 25	MIN. SIZE - 42
CAT./HAUL	- 0.7	MAX. SIZE - 98

APRIL	860414 - 860416	
NO. CGHT.	- 229	MEAN SIZE - 72.3
NO. MEAS.	- 229	S.E. SIZE - 1.1
NO. HAULS	- 24	MIN. SIZE - 37
CAT./HAUL	- 9.5	MAX. SIZE - 159

MAY	860519 - 860521	
NO. CGHT.	- 568	MEAN SIZE - 81.9
NO. MEAS.	- 568	S.E. SIZE - 0.7
NO. HAULS	- 37	MIN. SIZE - 49
CAT./HAUL	- 15.4	MAX. SIZE - 158

JUNE	860601 - 860619	
NO. CGHT.	- 359	MEAN SIZE - 97.7
NO. MEAS.	- 359	S.E. SIZE - 0.7
NO. HAULS	- 35	MIN. SIZE - 58
CAT./HAUL	- 10.3	MAX. SIZE - 125

JULY	860721 - 860724	
NO. CGHT.	- 166	MEAN SIZE - 110.5
NO. MEAS.	- 166	S.E. SIZE - 1.1
NO. HAULS	- 37	MIN. SIZE - 15
CAT./HAUL	- 4.5	MAX. SIZE - 136

AUGUST	860819 - 860822	
NO. CGHT.	- 260	MEAN SIZE - 121.2
NO. MEAS.	- 260	S.E. SIZE - 0.7
NO. HAULS	- 37	MIN. SIZE - 62
CAT./HAUL	- 7	MAX. SIZE - 177

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 175	MEAN SIZE - 118.1
NO. MEAS.	- 175	S.E. SIZE - 2.4
NO. HAULS	- 37	MIN. SIZE - 39
CAT./HAUL	- 4.7	MAX. SIZE - 180

OCTOBER	861020 - 861024	
NO. CGHT.	- 244	MEAN SIZE - 102.7
NO. MEAS.	- 244	S.E. SIZE - 2.5
NO. HAULS	- 37	MIN. SIZE - 41
CAT./HAUL	- 6.6	MAX. SIZE - 166

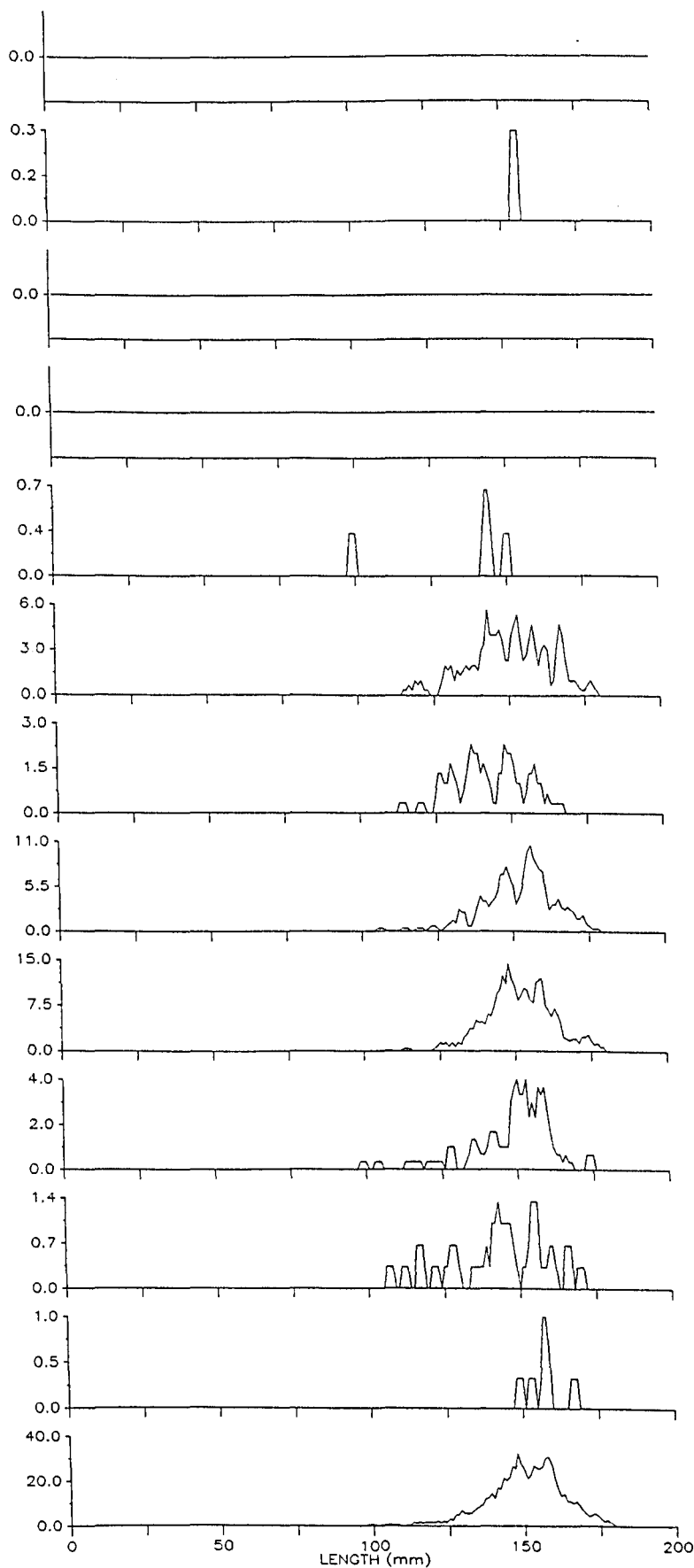
NOVEMBER	861117 - 861120	
NO. CGHT.	- 937	MEAN SIZE - 69.1
NO. MEAS.	- 937	S.E. SIZE - 0.5
NO. HAULS	- 36	MIN. SIZE - 33
CAT./HAUL	- 26	MAX. SIZE - 157

DECEMBER	861215 - 861218	
NO. CGHT.	- 223	MEAN SIZE - 64.8
NO. MEAS.	- 223	S.E. SIZE - 1
NO. HAULS	- 23	MIN. SIZE - 45
CAT./HAUL	- 9.7	MAX. SIZE - 149

JAN - DEC	860120 - 861218	
NO. CGHT.	- 3192	MEAN SIZE - 86.2
NO. MEAS.	- 3192	S.E. SIZE - 0.5
NO. HAULS	- 374	MIN. SIZE - 15
CAT./HAUL	- 8.5	MAX. SIZE - 180

Figure 55.

Blue Crab — Adult Female



JANUARY 860120 — 860129
 NO. CGHT. — 0 MEAN SIZE —
 NO. MEAS. — 0 S.E. SIZE —
 NO. HAULS — 22 MIN. SIZE —
 CAT./HAUL — 0 MAX. SIZE —

FEBRUARY 860220 — 860225
 NO. CGHT. — 1 MEAN SIZE — 153
 NO. MEAS. — 1 S.E. SIZE —
 NO. HAULS — 24 MIN. SIZE — 153
 CAT./HAUL — 0 MAX. SIZE — 153

MARCH 860324 — 860326
 NO. CGHT. — 0 MEAN SIZE —
 NO. MEAS. — 0 S.E. SIZE —
 NO. HAULS — 25 MIN. SIZE —
 CAT./HAUL — 0 MAX. SIZE —

APRIL 860414 — 860416
 NO. CGHT. — 0 MEAN SIZE —
 NO. MEAS. — 0 S.E. SIZE —
 NO. HAULS — 24 MIN. SIZE —
 CAT./HAUL — 0 MAX. SIZE —

MAY 860519 — 860521
 NO. CGHT. — 4 MEAN SIZE — 132
 NO. MEAS. — 4 S.E. SIZE — 11.8
 NO. HAULS — 37 MIN. SIZE — 97
 CAT./HAUL — 0.1 MAX. SIZE — 148

JUNE 860601 — 860619
 NO. CGHT. — 132 MEAN SIZE — 148.4
 NO. MEAS. — 132 S.E. SIZE — 1.1
 NO. HAULS — 35 MIN. SIZE — 114
 CAT./HAUL — 3.8 MAX. SIZE — 176

JULY 860721 — 860724
 NO. CGHT. — 50 MEAN SIZE — 140.7
 NO. MEAS. — 50 S.E. SIZE — 1.7
 NO. HAULS — 37 MIN. SIZE — 112
 CAT./HAUL — 1.4 MAX. SIZE — 164

AUGUST 860819 — 860822
 NO. CGHT. — 197 MEAN SIZE — 149.8
 NO. MEAS. — 197 S.E. SIZE — 0.8
 NO. HAULS — 37 MIN. SIZE — 104
 CAT./HAUL — 5.3 MAX. SIZE — 175

SEPTEMBER 860922 — 860926
 NO. CGHT. — 290 MEAN SIZE — 149.4
 NO. MEAS. — 290 S.E. SIZE — 0.6
 NO. HAULS — 37 MIN. SIZE — 112
 CAT./HAUL — 7.8 MAX. SIZE — 176

OCTOBER 861020 — 861024
 NO. CGHT. — 75 MEAN SIZE — 146
 NO. MEAS. — 75 S.E. SIZE — 1.6
 NO. HAULS — 37 MIN. SIZE — 97
 CAT./HAUL — 2 MAX. SIZE — 172

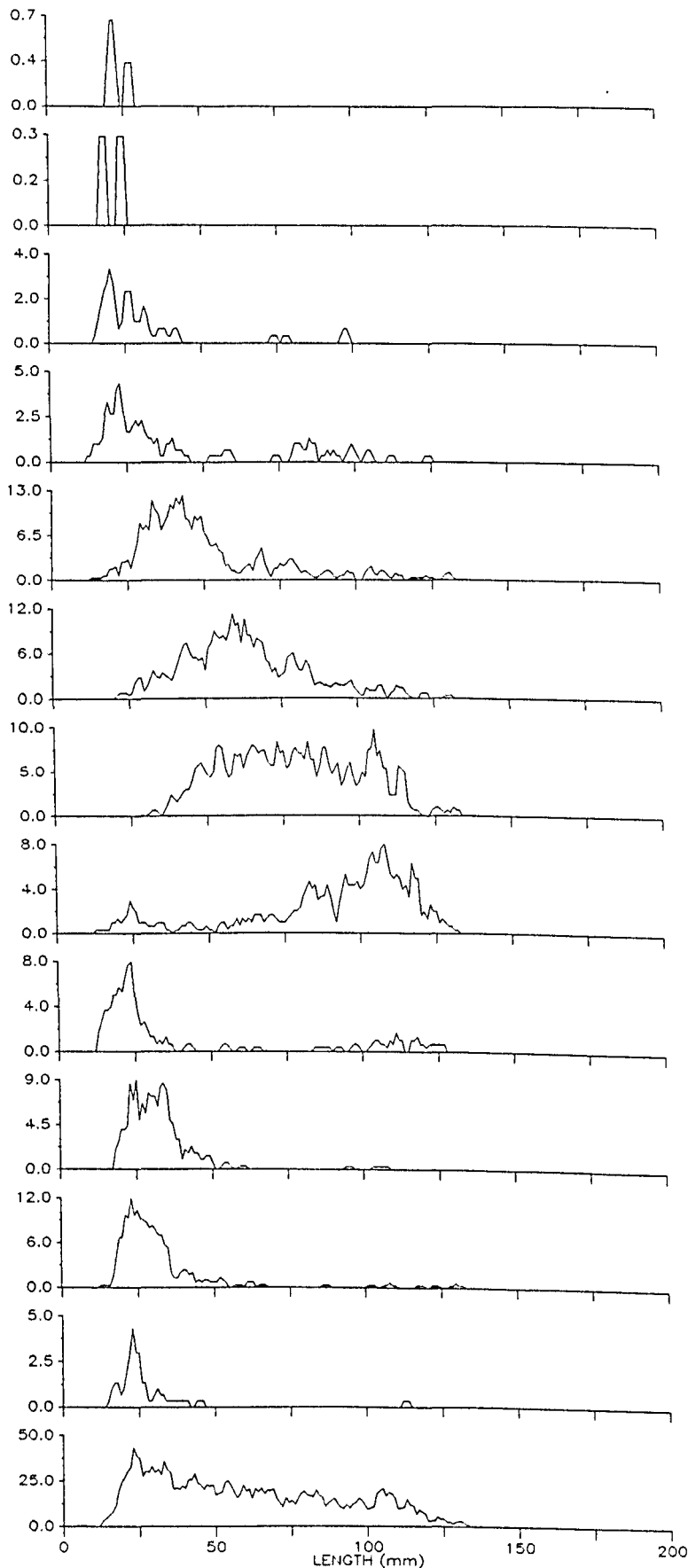
NOVEMBER 861117 — 861120
 NO. CGHT. — 30 MEAN SIZE — 140.6
 NO. MEAS. — 30 S.E. SIZE — 3.1
 NO. HAULS — 36 MIN. SIZE — 105
 CAT./HAUL — 0.8 MAX. SIZE — 168

DECEMBER 861215 — 861218
 NO. CGHT. — 6 MEAN SIZE — 155
 NO. MEAS. — 6 S.E. SIZE — 2.5
 NO. HAULS — 23 MIN. SIZE — 147
 CAT./HAUL — 0.3 MAX. SIZE — 165

JAN — DEC 860120 — 861218
 NO. CGHT. — 785 MEAN SIZE — 148.1
 NO. MEAS. — 785 S.E. SIZE — 0.4
 NO. HAULS — 374 MIN. SIZE — 97
 CAT./HAUL — 2.1 MAX. SIZE — 176

Figure 56.

Blue Crab — Juvenile Female



JANUARY	860120 — 860129		
NO. CGHT.	— 3	MEAN SIZE	— 21.3
NO. MEAS.	— 3	S.E. SIZE	— 1.9
NO. HAULS	— 22	MIN. SIZE	— 19
CAT./HAUL	— 0.1	MAX. SIZE	— 25

FEBRUARY	860220 — 860225		
NO. CGHT.	— 2	MEAN SIZE	— 19
NO. MEAS.	— 2	S.E. SIZE	— 3
NO. HAULS	— 24	MIN. SIZE	— 16
CAT./HAUL	— 0.1	MAX. SIZE	— 22

MARCH	860324 — 860326		
NO. CGHT.	— 41	MEAN SIZE	— 29
NO. MEAS.	— 41	S.E. SIZE	— 3.2
NO. HAULS	— 25	MIN. SIZE	— 4
CAT./HAUL	— 1.6	MAX. SIZE	— 96

APRIL	860414 — 860416		
NO. CGHT.	— 76	MEAN SIZE	— 42.2
NO. MEAS.	— 76	S.E. SIZE	— 3.5
NO. HAULS	— 24	MIN. SIZE	— 11
CAT./HAUL	— 3.2	MAX. SIZE	— 122

MAY	860519 — 860521		
NO. CGHT.	— 347	MEAN SIZE	— 48.3
NO. MEAS.	— 347	S.E. SIZE	— 1.2
NO. HAULS	— 37	MIN. SIZE	— 12
CAT./HAUL	— 9.4	MAX. SIZE	— 129

JUNE	860601 — 860619		
NO. CGHT.	— 367	MEAN SIZE	— 61
NO. MEAS.	— 367	S.E. SIZE	— 1
NO. HAULS	— 35	MIN. SIZE	— 20
CAT./HAUL	— 10.5	MAX. SIZE	— 128

JULY	860721 — 860724		
NO. CGHT.	— 453	MEAN SIZE	— 76.2
NO. MEAS.	— 453	S.E. SIZE	— 1
NO. HAULS	— 37	MIN. SIZE	— 30
CAT./HAUL	— 12.2	MAX. SIZE	— 130

AUGUST	860819 — 860822		
NO. CGHT.	— 266	MEAN SIZE	— 88.1
NO. MEAS.	— 266	S.E. SIZE	— 1.7
NO. HAULS	— 37	MIN. SIZE	— 12
CAT./HAUL	— 7.2	MAX. SIZE	— 129

SEPTEMBER	860922 — 860926		
NO. CGHT.	— 112	MEAN SIZE	— 40.6
NO. MEAS.	— 112	S.E. SIZE	— 3.4
NO. HAULS	— 37	MIN. SIZE	— 12
CAT./HAUL	— 3	MAX. SIZE	— 124

OCTOBER	861020 — 861024		
NO. CGHT.	— 150	MEAN SIZE	— 30.6
NO. MEAS.	— 150	S.E. SIZE	— 1
NO. HAULS	— 37	MIN. SIZE	— 17
CAT./HAUL	— 4.1	MAX. SIZE	— 105

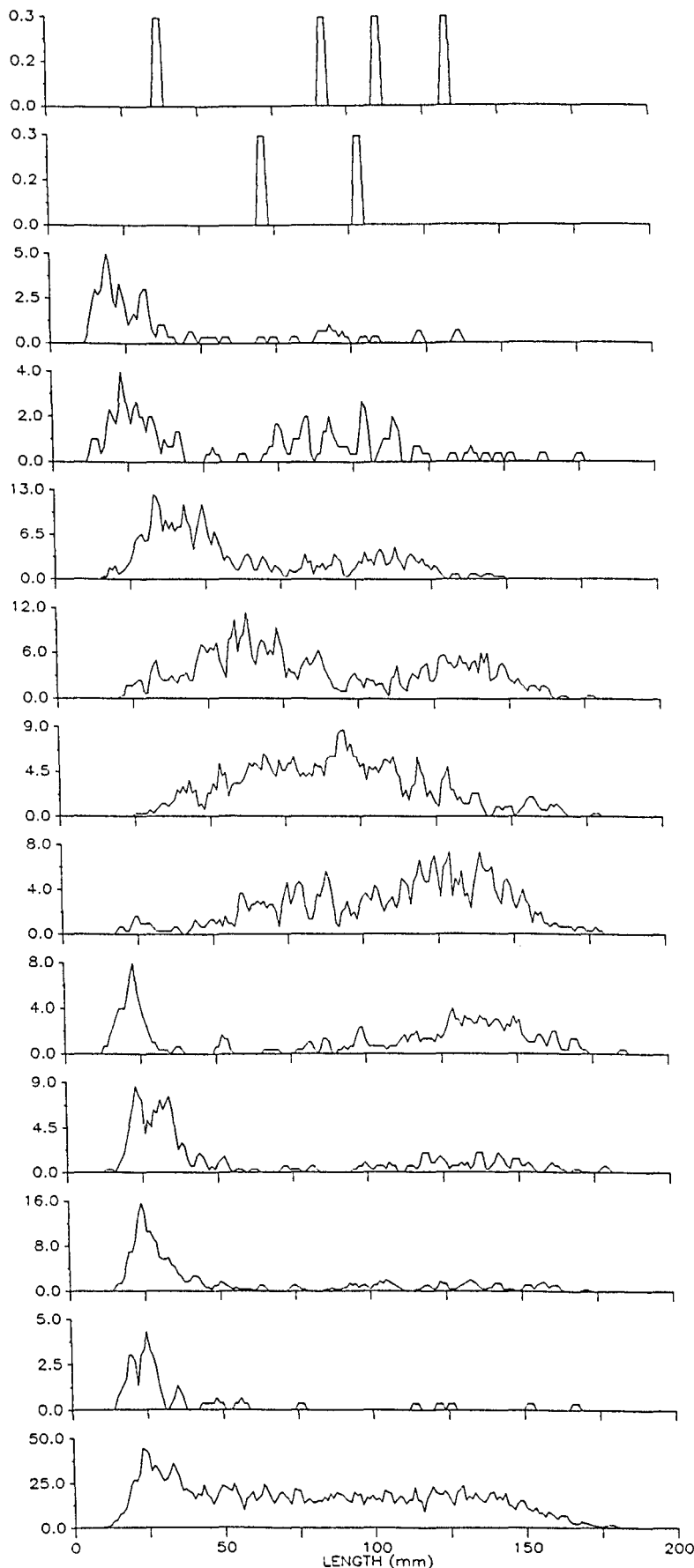
NOVEMBER	861117 — 861120		
NO. CGHT.	— 184	MEAN SIZE	— 30.9
NO. MEAS.	— 184	S.E. SIZE	— 1.4
NO. HAULS	— 36	MIN. SIZE	— 12
CAT./HAUL	— 5.1	MAX. SIZE	— 129

DECEMBER	861215 — 861218		
NO. CGHT.	— 32	MEAN SIZE	— 26
NO. MEAS.	— 32	S.E. SIZE	— 3
NO. HAULS	— 23	MIN. SIZE	— 14
CAT./HAUL	— 1.4	MAX. SIZE	— 111

JAN — DEC	860120 — 861218		
NO. CGHT.	— 2033	MEAN SIZE	— 57.7
NO. MEAS.	— 2033	S.E. SIZE	— 0.7
NO. HAULS	— 374	MIN. SIZE	— 4
CAT./HAUL	— 5.4	MAX. SIZE	— 130

Figure 57.

Blue Crab — Male



JANUARY 860120 — 860129
 NO. CGHT. — 5 MEAN SIZE — 73.4
 NO. MEAS. — 5 S.E. SIZE — 23.7
 NO. HAULS — 22 MIN. SIZE — 3
 CAT./HAUL — 0.2 MAX. SIZE — 131

FEBRUARY 860220 — 860225
 NO. CGHT. — 2 MEAN SIZE — 85
 NO. MEAS. — 2 S.E. SIZE — 16
 NO. HAULS — 24 MIN. SIZE — 69
 CAT./HAUL — 0.1 MAX. SIZE — 101

MARCH 860324 — 860326
 NO. CGHT. — 80 MEAN SIZE — 38.6
 NO. MEAS. — 80 S.E. SIZE — 3.6
 NO. HAULS — 25 MIN. SIZE — 11
 CAT./HAUL — 3.2 MAX. SIZE — 134

APRIL 860414 — 860416
 NO. CGHT. — 109 MEAN SIZE — 64.6
 NO. MEAS. — 109 S.E. SIZE — 4
 NO. HAULS — 24 MIN. SIZE — 9
 CAT./HAUL — 4.5 MAX. SIZE — 173

MAY 860519 — 860521
 NO. CGHT. — 410 MEAN SIZE — 60.7
 NO. MEAS. — 410 S.E. SIZE — 1.6
 NO. HAULS — 37 MIN. SIZE — 15
 CAT./HAUL — 11.1 MAX. SIZE — 146

JUNE 860601 — 860619
 NO. CGHT. — 537 MEAN SIZE — 86.2
 NO. MEAS. — 537 S.E. SIZE — 1.6
 NO. HAULS — 35 MIN. SIZE — 20
 CAT./HAUL — 15.3 MAX. SIZE — 175

JULY 860721 — 860724
 NO. CGHT. — 448 MEAN SIZE — 89.1
 NO. MEAS. — 448 S.E. SIZE — 1.4
 NO. HAULS — 37 MIN. SIZE — 24
 CAT./HAUL — 12.1 MAX. SIZE — 176

AUGUST 860819 — 860822
 NO. CGHT. — 409 MEAN SIZE — 106.7
 NO. MEAS. — 409 S.E. SIZE — 1.7
 NO. HAULS — 37 MIN. SIZE — 17
 CAT./HAUL — 11.1 MAX. SIZE — 176

SEPTEMBER 860922 — 860926
 NO. CGHT. — 216 MEAN SIZE — 94.8
 NO. MEAS. — 216 S.E. SIZE — 3.6
 NO. HAULS — 37 MIN. SIZE — 12
 CAT./HAUL — 5.8 MAX. SIZE — 183

OCTOBER 861020 — 861024
 NO. CGHT. — 200 MEAN SIZE — 60.6
 NO. MEAS. — 200 S.E. SIZE — 3.4
 NO. HAULS — 37 MIN. SIZE — 12
 CAT./HAUL — 5.4 MAX. SIZE — 177

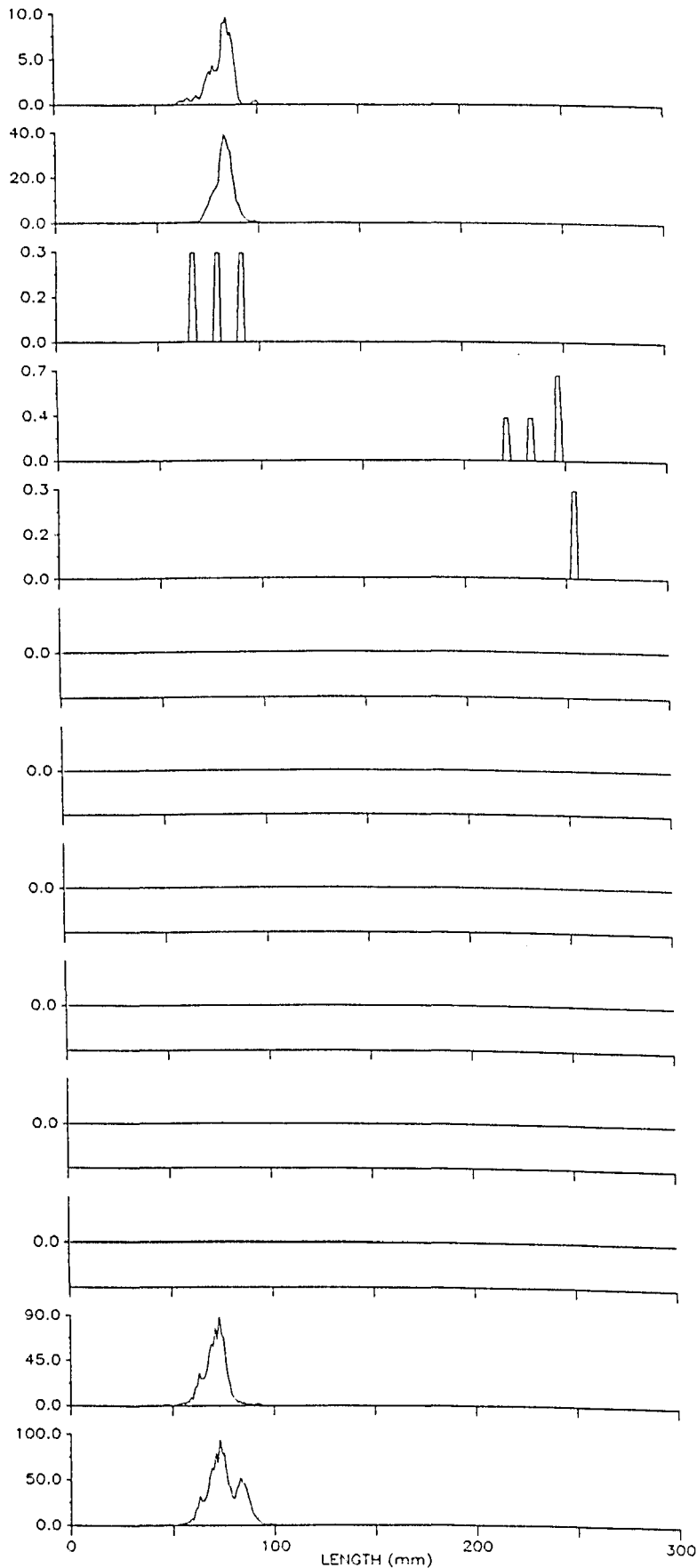
NOVEMBER 861117 — 861120
 NO. CGHT. — 252 MEAN SIZE — 53
 NO. MEAS. — 252 S.E. SIZE — 2.8
 NO. HAULS — 36 MIN. SIZE — 10
 CAT./HAUL — 7 MAX. SIZE — 169

DECEMBER 861215 — 861218
 NO. CGHT. — 51 MEAN SIZE — 36.8
 NO. MEAS. — 51 S.E. SIZE — 4.9
 NO. HAULS — 23 MIN. SIZE — 14
 CAT./HAUL — 2.2 MAX. SIZE — 165

JAN — DEC 860120 — 861218
 NO. CGHT. — 2719 MEAN SIZE — 78.4
 NO. MEAS. — 2719 S.E. SIZE — 0.8
 NO. HAULS — 374 MIN. SIZE — 3
 CAT./HAUL — 7.3 MAX. SIZE — 183

Figure 58.

Blueback Herring



JANUARY	860120 - 860129	
NO. CGHT.	- 100	MEAN SIZE - 80.2
NO. MEAS.	- 100	S.E. SIZE - 0.6
NO. HAULS	- 22	MIN. SIZE - 60
CAT./HAUL	- 4.5	MAX. SIZE - 97

FEBRUARY	860220 - 860225	
NO. CGHT.	- 374	MEAN SIZE - 81.2
NO. MEAS.	- 374	S.E. SIZE - 0.3
NO. HAULS	- 24	MIN. SIZE - 65
CAT./HAUL	- 15.6	MAX. SIZE - 173

MARCH	860324 - 860326	
NO. CGHT.	- 3	MEAN SIZE - 77
NO. MEAS.	- 3	S.E. SIZE - 6.9
NO. HAULS	- 25	MIN. SIZE - 65
CAT./HAUL	- 0.1	MAX. SIZE - 89

APRIL	860414 - 860416	
NO. CGHT.	- 4	MEAN SIZE - 235
NO. MEAS.	- 4	S.E. SIZE - 6.3
NO. HAULS	- 24	MIN. SIZE - 219
CAT./HAUL	- 0.2	MAX. SIZE - 245

MAY	860519 - 860521	
NO. CGHT.	- 1	MEAN SIZE - 252
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - 252
CAT./HAUL	- 0	MAX. SIZE - 252

JUNE	860601 - 860619	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 35	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

JULY	860721 - 860724	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

AUGUST	860819 - 860822	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

OCTOBER	861020 - 861024	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

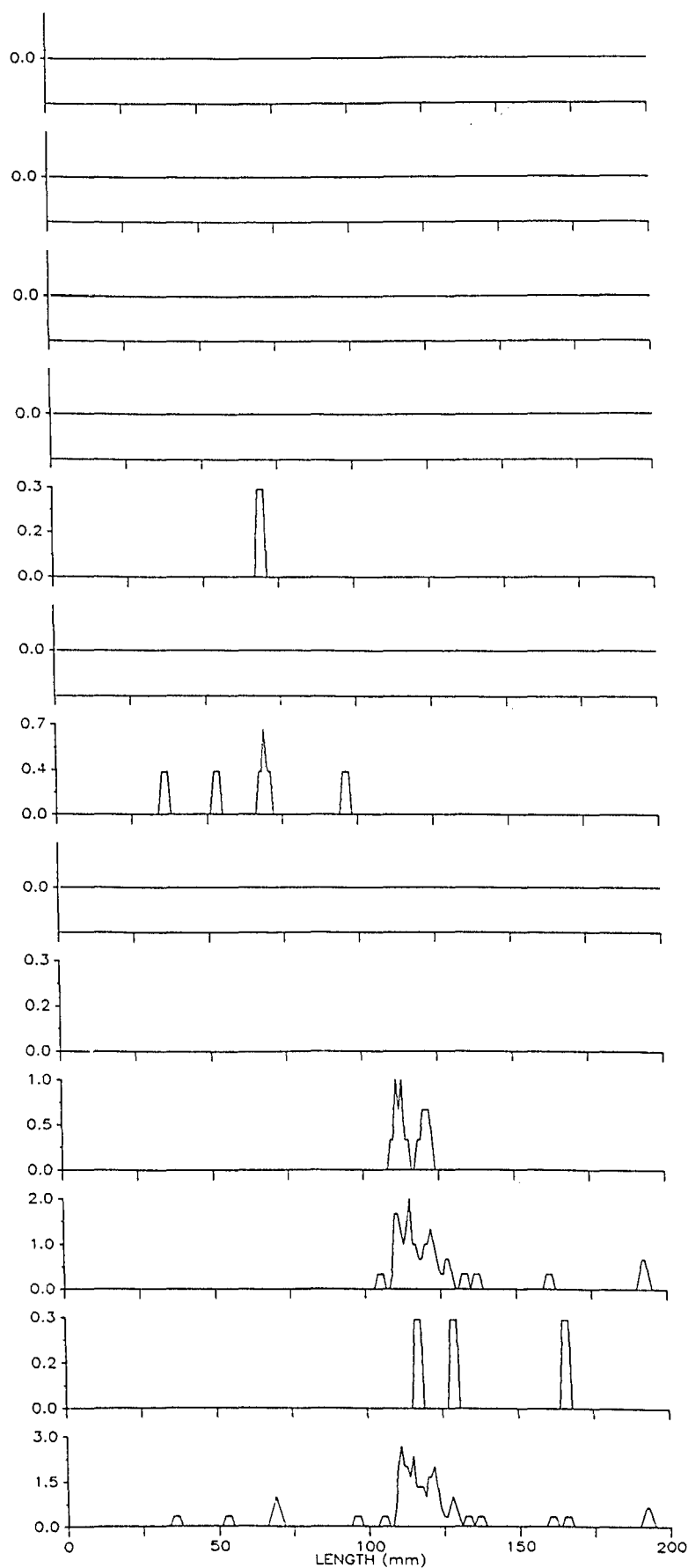
NOVEMBER	861117 - 861120	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 36	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

DECEMBER	861215 - 861218	
NO. CGHT.	- 906	MEAN SIZE - 68.7
NO. MEAS.	- 906	S.E. SIZE - 0.2
NO. HAULS	- 23	MIN. SIZE - 45
CAT./HAUL	- 39.4	MAX. SIZE - 90

JAN - DEC	860120 - 861218	
NO. CGHT.	- 1388	MEAN SIZE - 73.6
NO. MEAS.	- 1388	S.E. SIZE - 0.3
NO. HAULS	- 374	MIN. SIZE - 45
CAT./HAUL	- 3.7	MAX. SIZE - 252

Figure 59.

Butterfish



JANUARY 860120 - 860129
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 22 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

FEBRUARY 860220 - 860225
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MARCH 860324 - 860326
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 25 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

APRIL 860414 - 860416
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MAY 860519 - 860521
 NO. CGHT. - 1 MEAN SIZE - 67
 NO. MEAS. - 1 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE - 67
 CAT./HAUL - 0 MAX. SIZE - 67

JUNE 860601 - 860619
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 35 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JULY 860721 - 860724
 NO. CGHT. - 5 MEAN SIZE - 62.6
 NO. MEAS. - 5 S.E. SIZE - 9.9
 NO. HAULS - 37 MIN. SIZE - 34
 CAT./HAUL - 0.1 MAX. SIZE - 94

AUGUST 860819 - 860822
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

SEPTEMBER 860922 - 860926
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

OCTOBER 861020 - 861024
 NO. CGHT. - 8 MEAN SIZE - 126.5
 NO. MEAS. - 8 S.E. SIZE - 12.9
 NO. HAULS - 37 MIN. SIZE - 108
 CAT./HAUL - 0.2 MAX. SIZE - 216

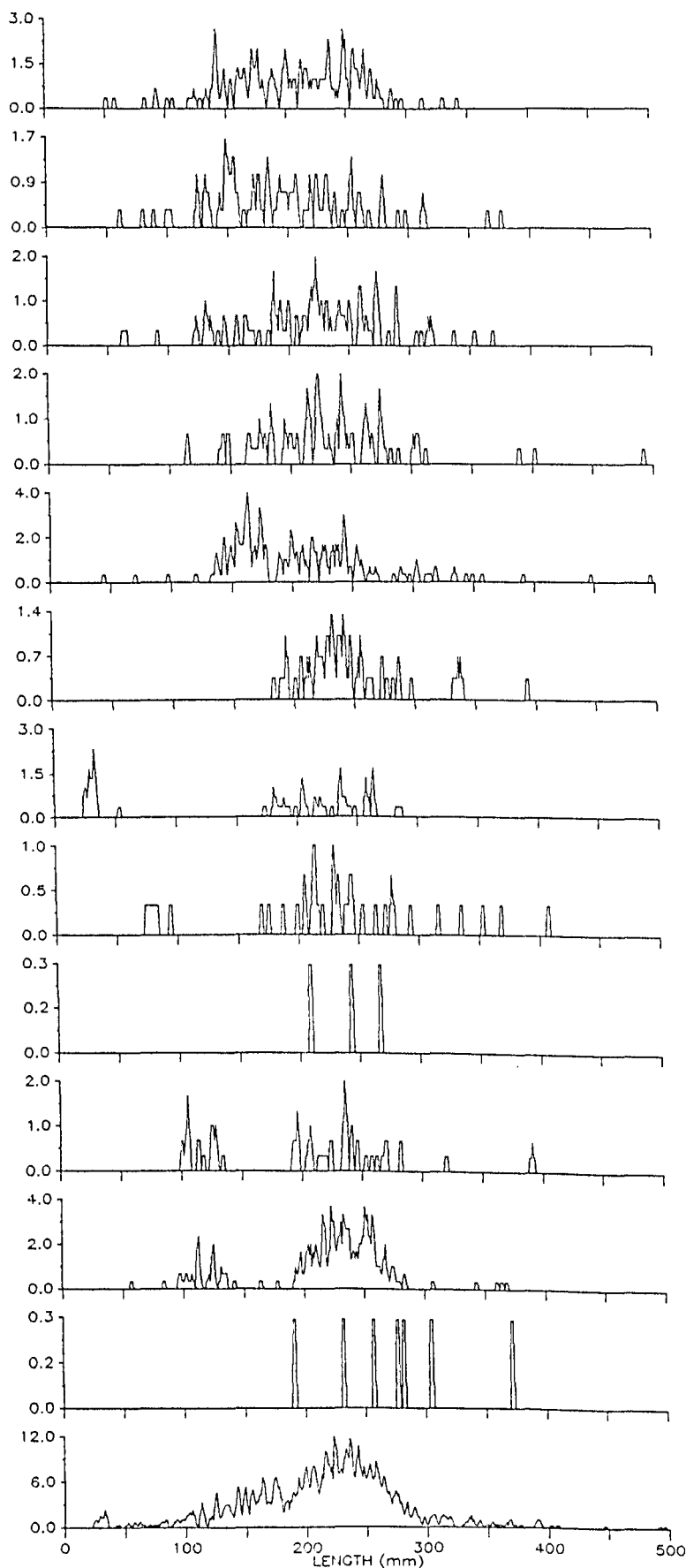
NOVEMBER 861117 - 861120
 NO. CGHT. - 26 MEAN SIZE - 123.7
 NO. MEAS. - 26 S.E. SIZE - 4.4
 NO. HAULS - 36 MIN. SIZE - 103
 CAT./HAUL - 0.7 MAX. SIZE - 191

DECEMBER 861215 - 861218
 NO. CGHT. - 3 MEAN SIZE - 135.3
 NO. MEAS. - 3 S.E. SIZE - 14.7
 NO. HAULS - 23 MIN. SIZE - 115
 CAT./HAUL - 0.1 MAX. SIZE - 164

JAN - DEC 860120 - 861218
 NO. CGHT. - 43 MEAN SIZE - 116.6
 NO. MEAS. - 43 S.E. SIZE - 5
 NO. HAULS - 374 MIN. SIZE - 34
 CAT./HAUL - 0.1 MAX. SIZE - 216

Figure 60.

Channel Catfish



JANUARY 860120 - 860129
 NO. CGHT. - 163 MEAN SIZE - 203.6
 NO. MEAS. - 163 S.E. SIZE - 4.2
 NO. HAULS - 22 MIN. SIZE - 49
 CAT./HAUL - 7.4 MAX. SIZE - 340

FEBRUARY 860220 - 860225
 NO. CGHT. - 92 MEAN SIZE - 198.9
 NO. MEAS. - 92 S.E. SIZE - 7.2
 NO. HAULS - 24 MIN. SIZE - 59
 CAT./HAUL - 3.8 MAX. SIZE - 535

MARCH 860324 - 860326
 NO. CGHT. - 96 MEAN SIZE - 219.8
 NO. MEAS. - 96 S.E. SIZE - 6.1
 NO. HAULS - 25 MIN. SIZE - 60
 CAT./HAUL - 3.8 MAX. SIZE - 367

APRIL 860414 - 860416
 NO. CGHT. - 85 MEAN SIZE - 228.3
 NO. MEAS. - 85 S.E. SIZE - 6.4
 NO. HAULS - 24 MIN. SIZE - 112
 CAT./HAUL - 3.5 MAX. SIZE - 490

MAY 860519 - 860521
 NO. CGHT. - 181 MEAN SIZE - 205.2
 NO. MEAS. - 181 S.E. SIZE - 4.6
 NO. HAULS - 37 MIN. SIZE - 42
 CAT./HAUL - 4.9 MAX. SIZE - 494

JUNE 860601 - 860619
 NO. CGHT. - 55 MEAN SIZE - 243.8
 NO. MEAS. - 55 S.E. SIZE - 5.6
 NO. HAULS - 35 MIN. SIZE - 181
 CAT./HAUL - 1.6 MAX. SIZE - 391

JULY 860721 - 860724
 NO. CGHT. - 56 MEAN SIZE - 169.5
 NO. MEAS. - 56 S.E. SIZE - 12.4
 NO. HAULS - 37 MIN. SIZE - 23
 CAT./HAUL - 1.5 MAX. SIZE - 284

AUGUST 860819 - 860822
 NO. CGHT. - 37 MEAN SIZE - 224.5
 NO. MEAS. - 37 S.E. SIZE - 12.8
 NO. HAULS - 37 MIN. SIZE - 72
 CAT./HAUL - 1 MAX. SIZE - 405

SEPTEMBER 860922 - 860926
 NO. CGHT. - 3 MEAN SIZE - 237.7
 NO. MEAS. - 3 S.E. SIZE - 16.8
 NO. HAULS - 37 MIN. SIZE - 207
 CAT./HAUL - 0.1 MAX. SIZE - 265

OCTOBER 861020 - 861024
 NO. CGHT. - 55 MEAN SIZE - 201.1
 NO. MEAS. - 55 S.E. SIZE - 9.5
 NO. HAULS - 37 MIN. SIZE - 98
 CAT./HAUL - 1.5 MAX. SIZE - 390

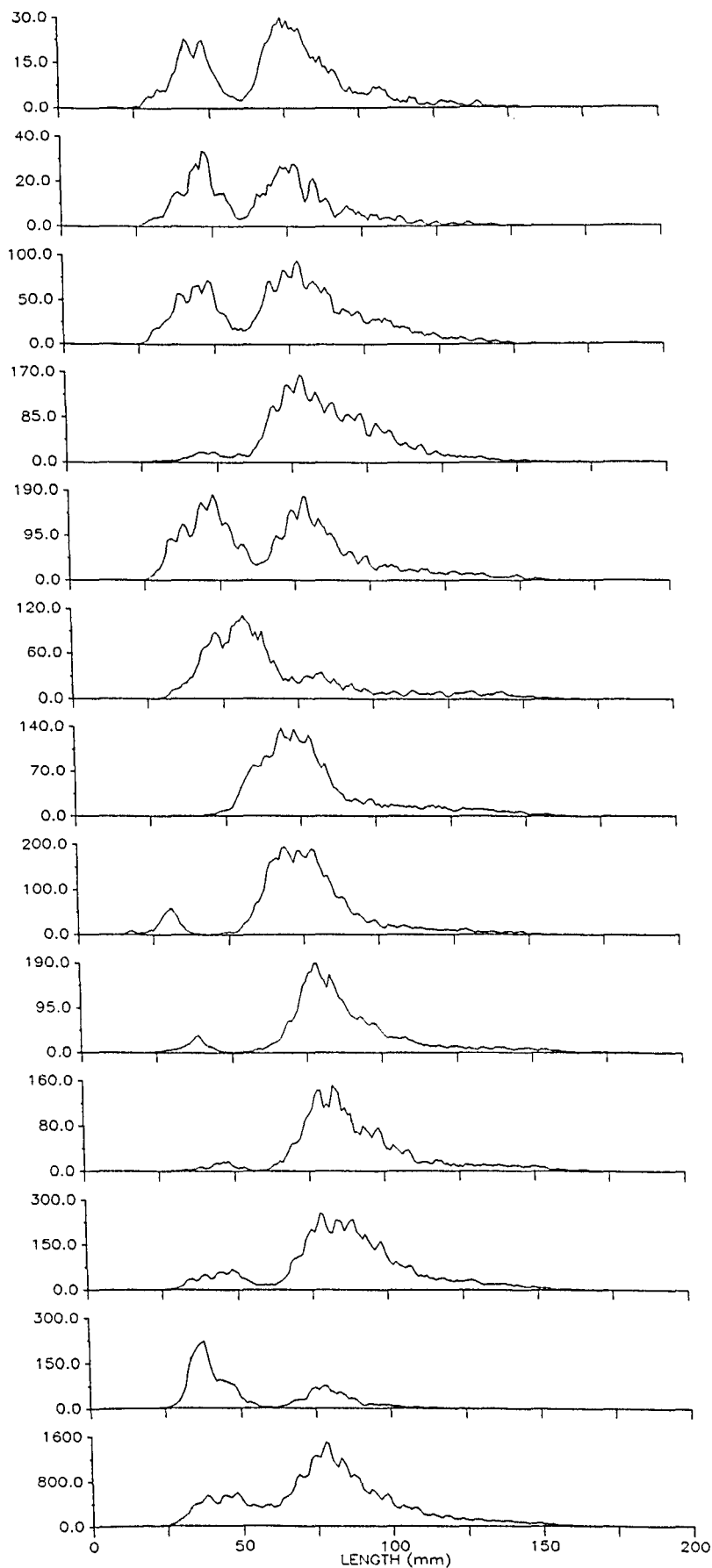
NOVEMBER 861117 - 861120
 NO. CGHT. - 190 MEAN SIZE - 216.5
 NO. MEAS. - 190 S.E. SIZE - 3.9
 NO. HAULS - 36 MIN. SIZE - 55
 CAT./HAUL - 5.3 MAX. SIZE - 366

DECEMBER 861215 - 861218
 NO. CGHT. - 7 MEAN SIZE - 271.7
 NO. MEAS. - 7 S.E. SIZE - 21.6
 NO. HAULS - 23 MIN. SIZE - 189
 CAT./HAUL - 0.3 MAX. SIZE - 370

JAN - DEC 860120 - 861218
 NO. CGHT. - 1020 MEAN SIZE - 210.9
 NO. MEAS. - 1020 S.E. SIZE - 2
 NO. HAULS - 374 MIN. SIZE - 23
 CAT./HAUL - 2.7 MAX. SIZE - 535

Figure 61.

Hogchoker



JANUARY 860120 - 860129
 NO. CGHT. - 1082 MEAN SIZE - 69.4
 NO. MEAS. - 1082 S.E. SIZE - 0.7
 NO. HAULS - 22 MIN. SIZE - 16
 CAT./HAUL - 49.2 MAX. SIZE - 150

FEBRUARY 860220 - 860225
 NO. CGHT. - 1105 MEAN SIZE - 66.2
 NO. MEAS. - 1105 S.E. SIZE - 0.7
 NO. HAULS - 24 MIN. SIZE - 26
 CAT./HAUL - 46 MAX. SIZE - 151

MARCH 860324 - 860326
 NO. CGHT. - 4019 MEAN SIZE - 72
 NO. MEAS. - 4019 S.E. SIZE - 0.4
 NO. HAULS - 25 MIN. SIZE - 24
 CAT./HAUL - 160.8 MAX. SIZE - 188

APRIL 860414 - 860416
 NO. CGHT. - 5434 MEAN SIZE - 84.4
 NO. MEAS. - 5434 S.E. SIZE - 0.3
 NO. HAULS - 24 MIN. SIZE - 24
 CAT./HAUL - 226.4 MAX. SIZE - 192

MAY 860519 - 860521
 NO. CGHT. - 7650 MEAN SIZE - 68.1
 NO. MEAS. - 7650 S.E. SIZE - 0.3
 NO. HAULS - 37 MIN. SIZE - 24
 CAT./HAUL - 206.8 MAX. SIZE - 187

JUNE 860601 - 860619
 NO. CGHT. - 3376 MEAN SIZE - 65.8
 NO. MEAS. - 3376 S.E. SIZE - 0.4
 NO. HAULS - 35 MIN. SIZE - 28
 CAT./HAUL - 96.5 MAX. SIZE - 180

JULY 860721 - 860724
 NO. CGHT. - 4174 MEAN SIZE - 78.6
 NO. MEAS. - 4174 S.E. SIZE - 0.3
 NO. HAULS - 37 MIN. SIZE - 32
 CAT./HAUL - 112.8 MAX. SIZE - 175

AUGUST 860819 - 860822
 NO. CGHT. - 6060 MEAN SIZE - 73.2
 NO. MEAS. - 6060 S.E. SIZE - 0.3
 NO. HAULS - 37 MIN. SIZE - 15
 CAT./HAUL - 163.8 MAX. SIZE - 186

SEPTEMBER 860922 - 860926
 NO. CGHT. - 4840 MEAN SIZE - 83.8
 NO. MEAS. - 4840 S.E. SIZE - 0.3
 NO. HAULS - 37 MIN. SIZE - 21
 CAT./HAUL - 130.8 MAX. SIZE - 193

OCTOBER 861020 - 861024
 NO. CGHT. - 4193 MEAN SIZE - 87.8
 NO. MEAS. - 4193 S.E. SIZE - 0.3
 NO. HAULS - 37 MIN. SIZE - 26
 CAT./HAUL - 113.3 MAX. SIZE - 186

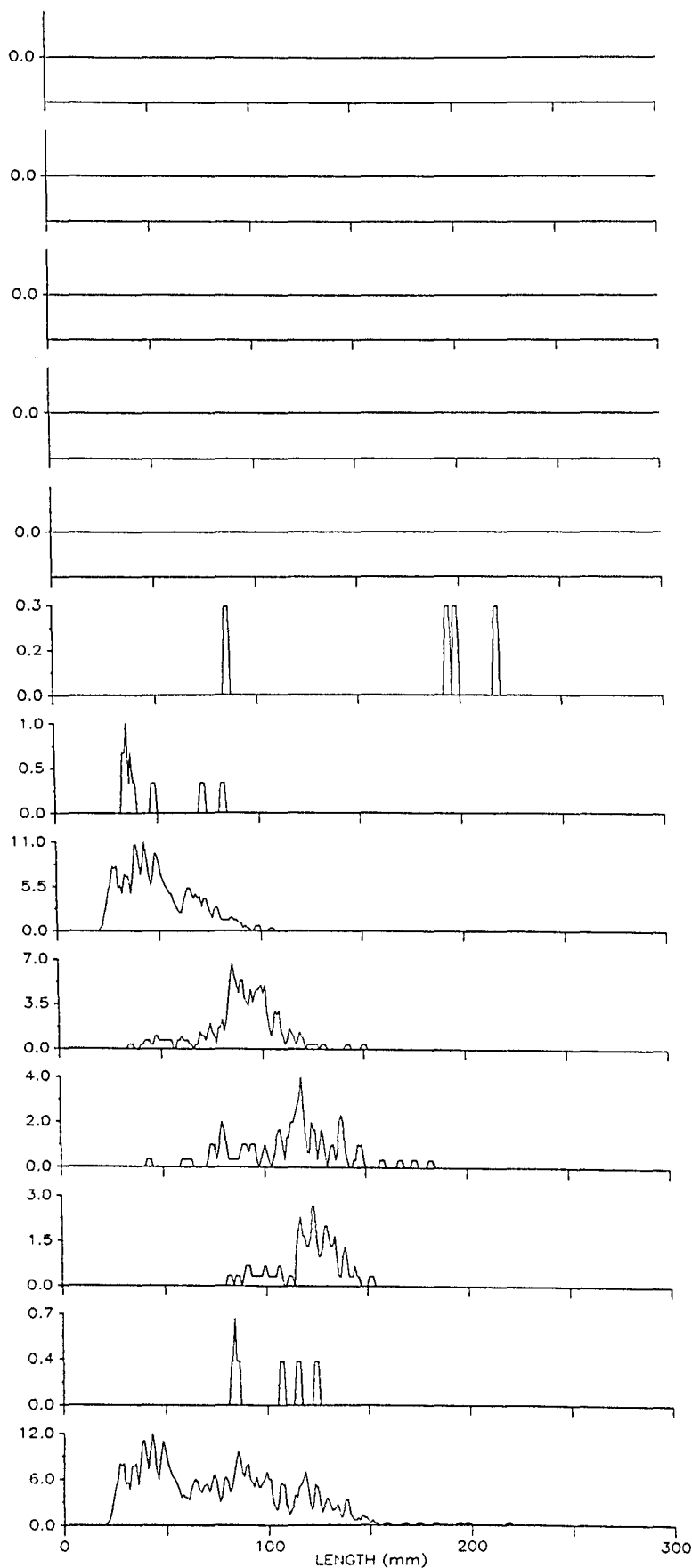
NOVEMBER 861117 - 861120
 NO. CGHT. - 9086 MEAN SIZE - 83.7
 NO. MEAS. - 9086 S.E. SIZE - 0.2
 NO. HAULS - 36 MIN. SIZE - 23
 CAT./HAUL - 252.4 MAX. SIZE - 219

DECEMBER 861215 - 861218
 NO. CGHT. - 3918 MEAN SIZE - 51.8
 NO. MEAS. - 3918 S.E. SIZE - 0.3
 NO. HAULS - 23 MIN. SIZE - 22
 CAT./HAUL - 170.3 MAX. SIZE - 148

JAN - DEC 860120 - 861218
 NO. CGHT. - 54937 MEAN SIZE - 75.5
 NO. MEAS. - 54937 S.E. SIZE - 0.1
 NO. HAULS - 374 MIN. SIZE - 15
 CAT./HAUL - 146.9 MAX. SIZE - 219

Figure 62.

Northern Kingfish



JANUARY	860120 - 860129	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 22	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

FEBRUARY	860220 - 860225	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 24	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

MARCH	860324 - 860326	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 25	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

APRIL	860414 - 860416	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 24	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

MAY	860519 - 860521	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 37	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

JUNE	860601 - 860619	
NO. CGHT.	- 4	MEAN SIZE - 171.8
NO. MEAS.	- 4	S.E. SIZE - 30
NO. HAULS	- 35	MIN. SIZE - 83
CAT./HAUL	- 0.1	MAX. SIZE - 216

JULY	860721 - 860724	
NO. CGHT.	- 7	MEAN SIZE - 47.1
NO. MEAS.	- 7	S.E. SIZE - 7.5
NO. HAULS	- 37	MIN. SIZE - 32
CAT./HAUL	- 0.2	MAX. SIZE - 80

AUGUST	860819 - 860822	
NO. CGHT.	- 335	MEAN SIZE - 47.6
NO. MEAS.	- 335	S.E. SIZE - 0.9
NO. HAULS	- 37	MIN. SIZE - 20
CAT./HAUL	- 9.1	MAX. SIZE - 103

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 158	MEAN SIZE - 88
NO. MEAS.	- 158	S.E. SIZE - 1.5
NO. HAULS	- 37	MIN. SIZE - 33
CAT./HAUL	- 4.3	MAX. SIZE - 148

OCTOBER	861020 - 861024	
NO. CGHT.	- 87	MEAN SIZE - 111
NO. MEAS.	- 87	S.E. SIZE - 2.7
NO. HAULS	- 37	MIN. SIZE - 41
CAT./HAUL	- 2.4	MAX. SIZE - 180

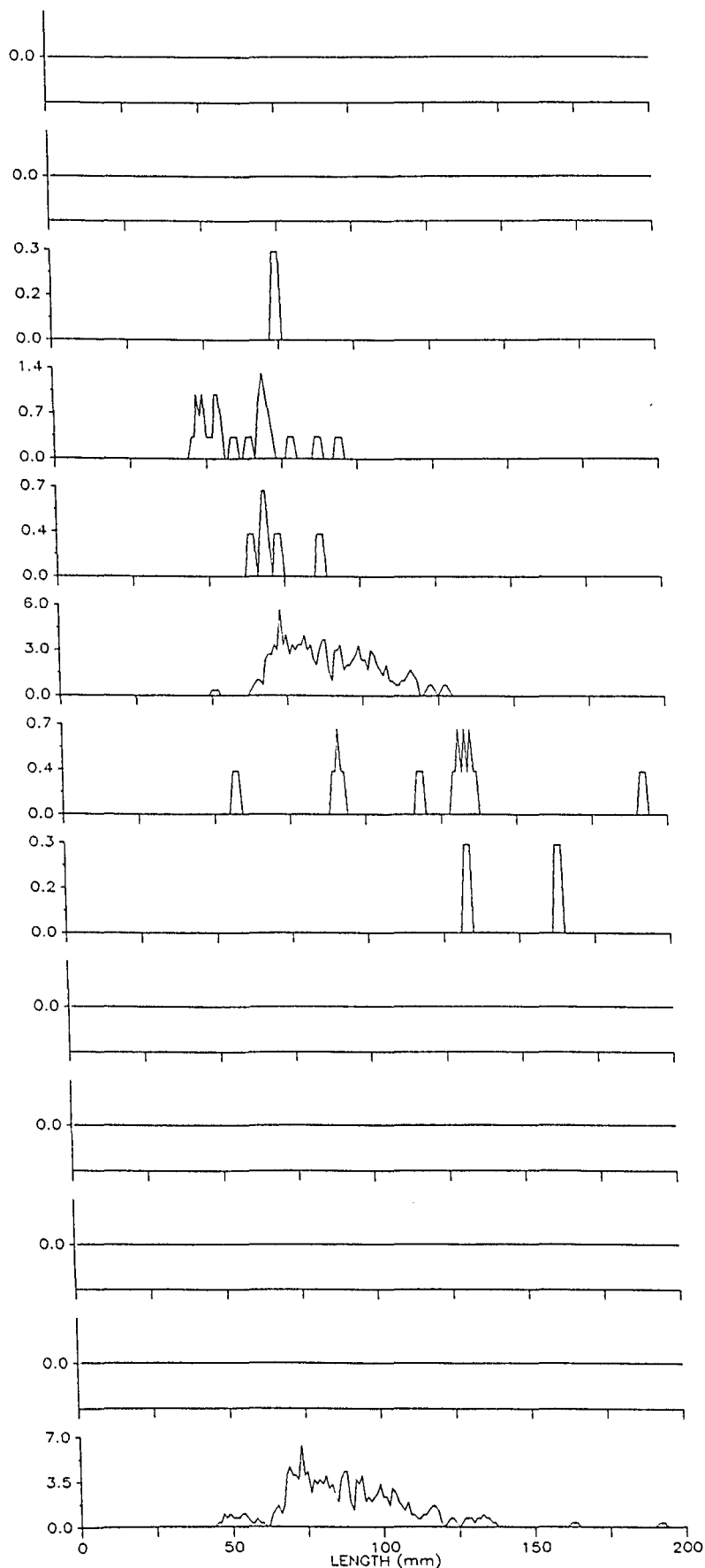
NOVEMBER	861117 - 861120	
NO. CGHT.	- 54	MEAN SIZE - 118.8
NO. MEAS.	- 54	S.E. SIZE - 2.1
NO. HAULS	- 36	MIN. SIZE - 80
CAT./HAUL	- 1.5	MAX. SIZE - 150

DECEMBER	861215 - 861218	
NO. CGHT.	- 5	MEAN SIZE - 100.8
NO. MEAS.	- 5	S.E. SIZE - 8.1
NO. HAULS	- 23	MIN. SIZE - 81
CAT./HAUL	- 0.2	MAX. SIZE - 122

JAN - DEC	860120 - 861218	
NO. CGHT.	- 650	MEAN SIZE - 73
NO. MEAS.	- 650	S.E. SIZE - 1.4
NO. HAULS	- 374	MIN. SIZE - 20
CAT./HAUL	- 1.7	MAX. SIZE - 216

Figure 63.

Northern Searobin



JANUARY 860120 - 860129
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 22 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

FEBRUARY 860220 - 860225
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MARCH 860324 - 860326
 NO. CGHT. - 1 MEAN SIZE - 72
 NO. MEAS. - 1 S.E. SIZE -
 NO. HAULS - 25 MIN. SIZE - 72
 CAT./HAUL - 0 MAX. SIZE - 72

APRIL 860414 - 860416
 NO. CGHT. - 17 MEAN SIZE - 61.6
 NO. MEAS. - 17 S.E. SIZE - 3.4
 NO. HAULS - 24 MIN. SIZE - 44
 CAT./HAUL - 0.7 MAX. SIZE - 92

MAY 860519 - 860521
 NO. CGHT. - 5 MEAN SIZE - 70.2
 NO. MEAS. - 5 S.E. SIZE - 4
 NO. HAULS - 37 MIN. SIZE - 62
 CAT./HAUL - 0.1 MAX. SIZE - 85

JUNE 860601 - 860619
 NO. CGHT. - 132 MEAN SIZE - 86.7
 NO. MEAS. - 132 S.E. SIZE - 1.3
 NO. HAULS - 35 MIN. SIZE - 49
 CAT./HAUL - 3.8 MAX. SIZE - 126

JULY 860721 - 860724
 NO. CGHT. - 9 MEAN SIZE - 118.1
 NO. MEAS. - 9 S.E. SIZE - 12.7
 NO. HAULS - 37 MIN. SIZE - 55
 CAT./HAUL - 0.2 MAX. SIZE - 190

AUGUST 860819 - 860822
 NO. CGHT. - 2 MEAN SIZE - 146
 NO. MEAS. - 2 S.E. SIZE - 15
 NO. HAULS - 37 MIN. SIZE - 131
 CAT./HAUL - 0.1 MAX. SIZE - 161

SEPTEMBER 860922 - 860926
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

OCTOBER 861020 - 861024
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

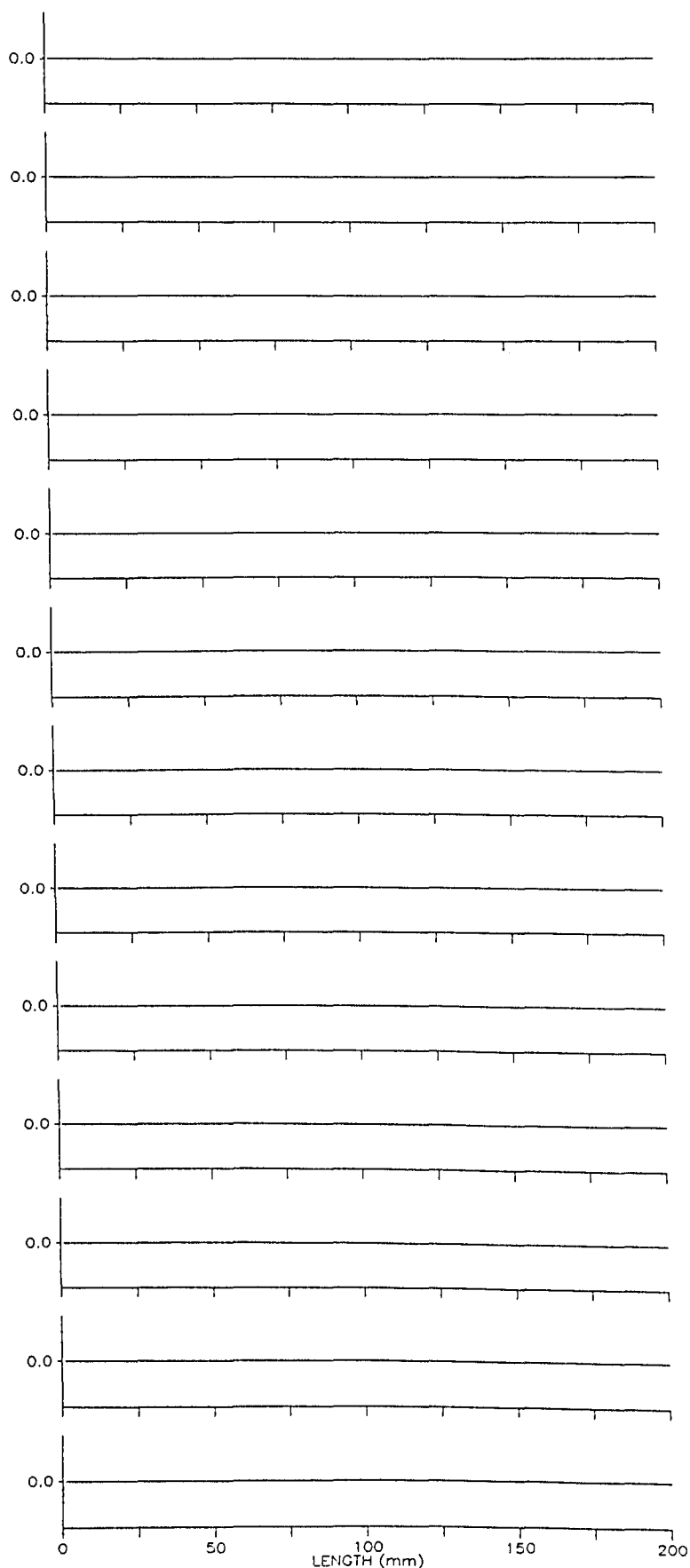
NOVEMBER 861117 - 861120
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 36 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

DECEMBER 861215 - 861218
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 23 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JAN - DEC 860120 - 861218
 NO. CGHT. - 166 MEAN SIZE - 86
 NO. MEAS. - 166 S.E. SIZE - 1.7
 NO. HAULS - 374 MIN. SIZE - 44
 CAT./HAUL - 0.4 MAX. SIZE - 190

Figure 64.

Scup



JANUARY	860120 - 860129	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 22	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

FEBRUARY	860220 - 860225	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 24	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

MARCH	860324 - 860326	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 25	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

APRIL	860414 - 860416	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 24	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

MAY	860519 - 860521	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 37	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

JUNE	860601 - 860619	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 35	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

JULY	860721 - 860724	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 37	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

AUGUST	860819 - 860822	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 37	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 37	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

OCTOBER	861020 - 861024	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 37	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

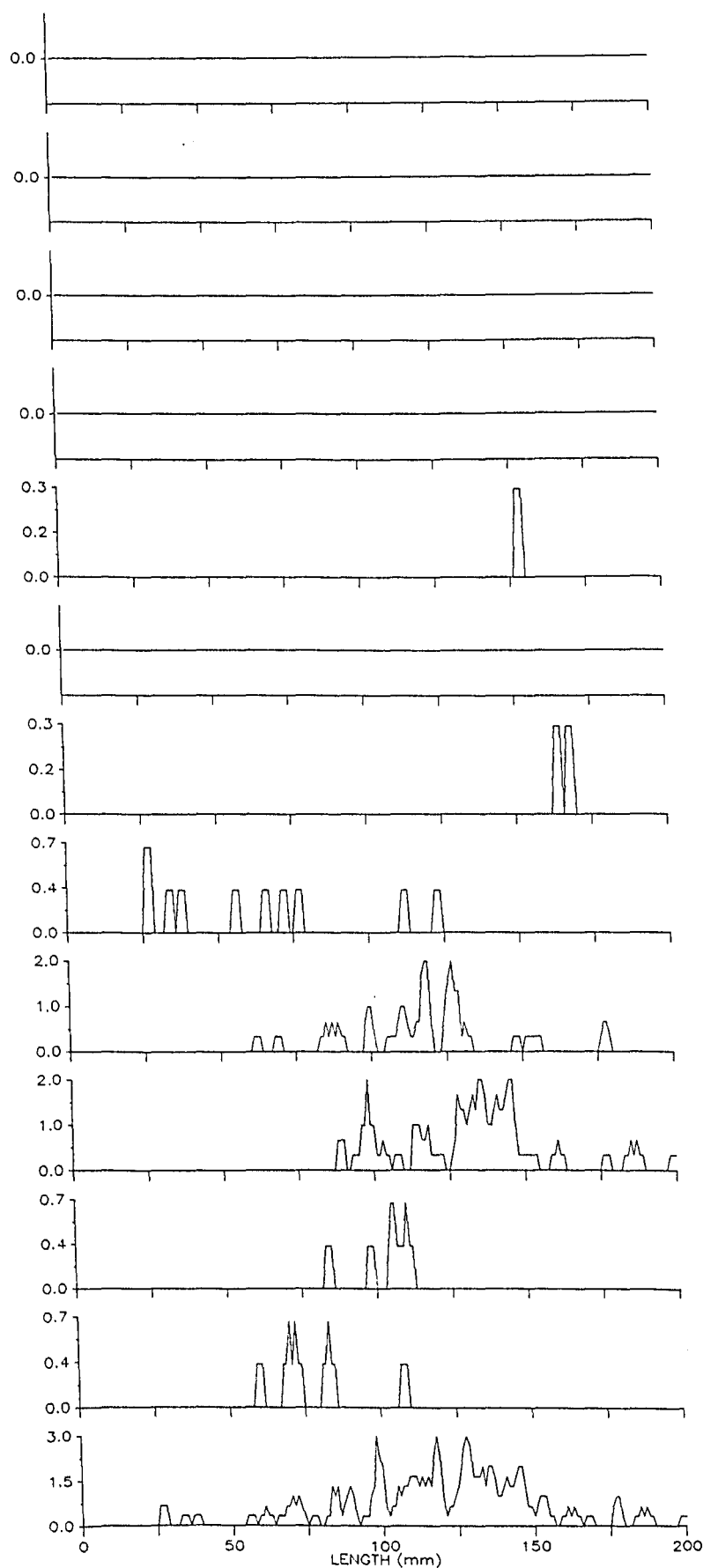
NOVEMBER	861117 - 861120	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 36	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

DECEMBER	861215 - 861218	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 23	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

JAN - DEC	860120 - 861218	
NO. CGHT.	- 0	MEAN SIZE -
NO. MEAS.	- 0	S.E. SIZE -
NO. HAULS	- 374	MIN. SIZE -
CAT./HAUL	- 0	MAX. SIZE -

Figure 65.

Silver Perch



JANUARY 860120 - 860129
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 22 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

FEBRUARY 860220 - 860225
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MARCH 860324 - 860326
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 25 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

APRIL 860414 - 860416
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MAY 860519 - 860521
 NO. CGHT. - 1 MEAN SIZE - 151
 NO. MEAS. - 1 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE - 151
 CAT./HAUL - 0 MAX. SIZE - 151

JUNE 860601 - 860619
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 35 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JULY 860721 - 860724
 NO. CGHT. - 2 MEAN SIZE - 164
 NO. MEAS. - 2 S.E. SIZE - 2
 NO. HAULS - 37 MIN. SIZE - 162
 CAT./HAUL - 0.1 MAX. SIZE - 166

AUGUST 860819 - 860822
 NO. CGHT. - 10 MEAN SIZE - 61.2
 NO. MEAS. - 10 S.E. SIZE - 10.7
 NO. HAULS - 37 MIN. SIZE - 25
 CAT./HAUL - 0.3 MAX. SIZE - 121

SEPTEMBER 860922 - 860926
 NO. CGHT. - 37 MEAN SIZE - 115.6
 NO. MEAS. - 37 S.E. SIZE - 4.1
 NO. HAULS - 37 MIN. SIZE - 60
 CAT./HAUL - 1 MAX. SIZE - 176

OCTOBER 861020 - 861024
 NO. CGHT. - 59 MEAN SIZE - 130.4
 NO. MEAS. - 59 S.E. SIZE - 3.2
 NO. HAULS - 37 MIN. SIZE - 87
 CAT./HAUL - 1.6 MAX. SIZE - 197

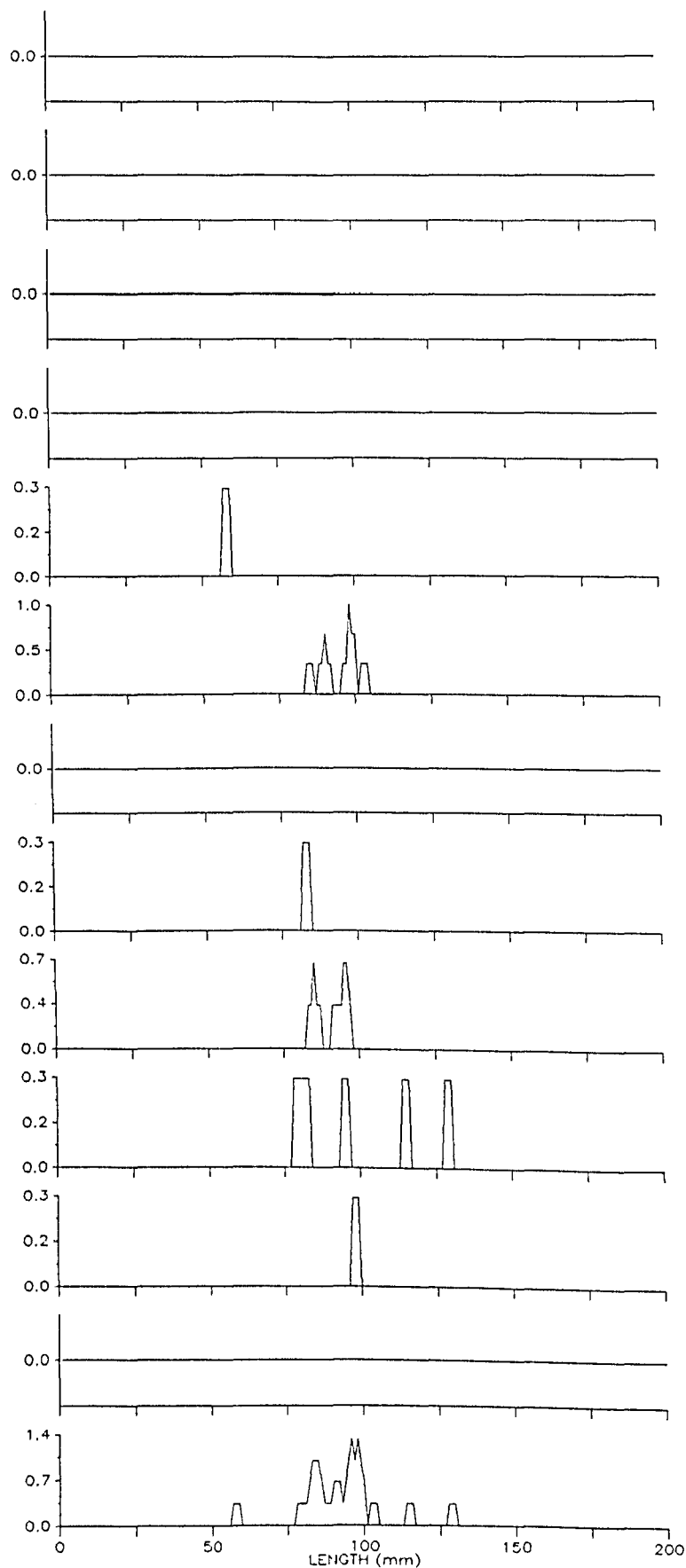
NOVEMBER 861117 - 861120
 NO. CGHT. - 6 MEAN SIZE - 100.2
 NO. MEAS. - 6 S.E. SIZE - 4.1
 NO. HAULS - 36 MIN. SIZE - 82
 CAT./HAUL - 0.2 MAX. SIZE - 109

DECEMBER 861215 - 861218
 NO. CGHT. - 7 MEAN SIZE - 76.1
 NO. MEAS. - 7 S.E. SIZE - 5.8
 NO. HAULS - 23 MIN. SIZE - 58
 CAT./HAUL - 0.3 MAX. SIZE - 106

JAN - DEC 860120 - 861218
 NO. CGHT. - 122 MEAN SIZE - 116.3
 NO. MEAS. - 122 S.E. SIZE - 3
 NO. HAULS - 374 MIN. SIZE - 25
 CAT./HAUL - 0.3 MAX. SIZE - 197

Figure 66.

Smallmouth Flounder



JANUARY	860120 - 860129	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 22	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

FEBRUARY	860220 - 860225	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 24	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

MARCH	860324 - 860326	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 25	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

APRIL	860414 - 860416	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 24	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

MAY	860519 - 860521	
NO. CGHT.	- 1	MEAN SIZE - 56
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - 56
CAT./HAUL	- 0	MAX. SIZE - 56

JUNE	860601 - 860619	
NO. CGHT.	- 7	MEAN SIZE - 92.7
NO. MEAS.	- 7	S.E. SIZE - 2.4
NO. HAULS	- 35	MIN. SIZE - 83
CAT./HAUL	- 0.2	MAX. SIZE - 101

JULY	860721 - 860724	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

AUGUST	860819 - 860822	
NO. CGHT.	- 1	MEAN SIZE - 81
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 37	MIN. SIZE - 81
CAT./HAUL	- 0	MAX. SIZE - 81

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 5	MEAN SIZE - 88.6
NO. MEAS.	- 5	S.E. SIZE - 2.4
NO. HAULS	- 37	MIN. SIZE - 82
CAT./HAUL	- 0.1	MAX. SIZE - 94

OCTOBER	861020 - 861024	
NO. CGHT.	- 5	MEAN SIZE - 98
NO. MEAS.	- 5	S.E. SIZE - 9.6
NO. HAULS	- 37	MIN. SIZE - 77
CAT./HAUL	- 0.1	MAX. SIZE - 127

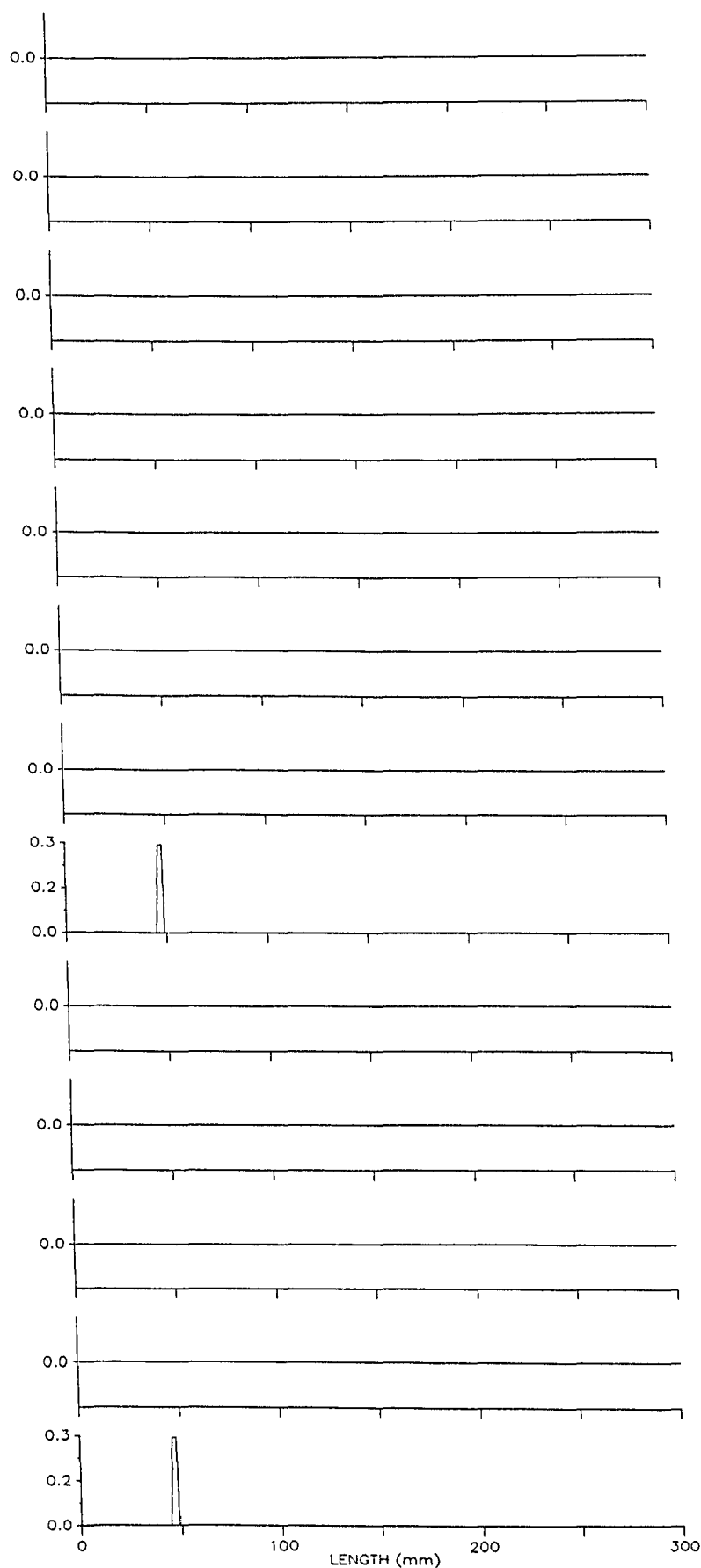
NOVEMBER	861117 - 861120	
NO. CGHT.	- 1	MEAN SIZE - 96
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 36	MIN. SIZE - 96
CAT./HAUL	- 0	MAX. SIZE - 96

DECEMBER	861215 - 861218	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 23	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

JAN - DEC	860120 - 861218	
NO. CGHT.	- 20	MEAN SIZE - 90.8
NO. MEAS.	- 20	S.E. SIZE - 3.2
NO. HAULS	- 374	MIN. SIZE - 56
CAT./HAUL	- 0.1	MAX. SIZE - 127

Figure 67.

Southern Kingfish



JANUARY 860120 - 860129
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 22 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

FEBRUARY 860220 - 860225
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MARCH 860324 - 860326
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 25 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

APRIL 860414 - 860416
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MAY 860519 - 860521
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JUNE 860601 - 860619
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 35 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JULY 860721 - 860724
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

AUGUST 860819 - 860822
 NO. CGHT. - 1 MEAN SIZE - 45
 NO. MEAS. - 1 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE - 45
 CAT./HAUL - 0 MAX. SIZE - 45

SEPTEMBER 860922 - 860926
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

OCTOBER 861020 - 861024
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

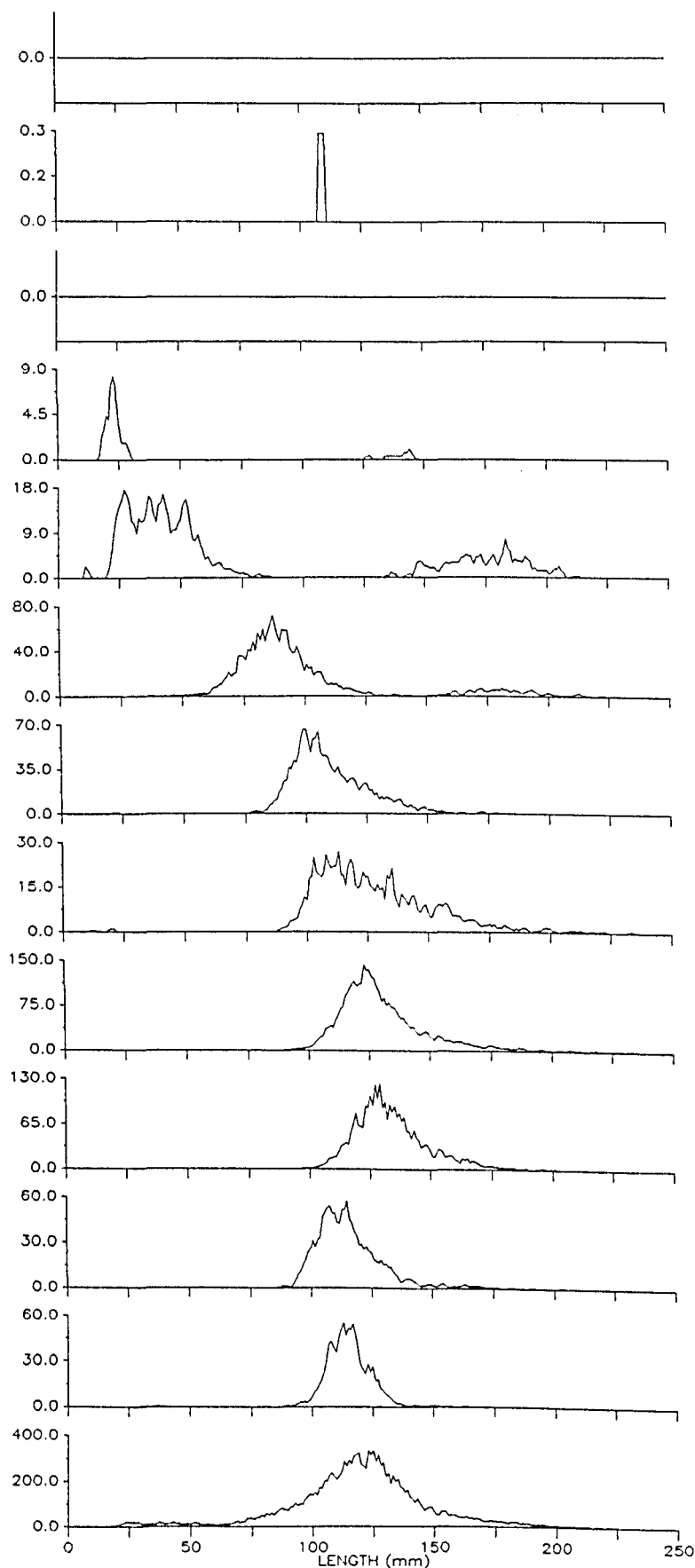
NOVEMBER 861117 - 861120
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 36 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

DECEMBER 861215 - 861218
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 23 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

JAN - DEC 860120 - 861218
 NO. CGHT. - 1 MEAN SIZE - 45
 NO. MEAS. - 1 S.E. SIZE -
 NO. HAULS - 374 MIN. SIZE - 45
 CAT./HAUL - 0 MAX. SIZE - 45

Figure 68.

Spot



JANUARY	860120 - 860129	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 22	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

FEBRUARY	860220 - 860225	
NO. CGHT.	- 1	MEAN SIZE - 107
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 24	MIN. SIZE - 107
CAT./HAUL	- 0	MAX. SIZE - 107

MARCH	860324 - 860326	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 25	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

APRIL	860414 - 860416	
NO. CGHT.	- 54	MEAN SIZE - 35.8
NO. MEAS.	- 54	S.E. SIZE - 5.4
NO. HAULS	- 24	MIN. SIZE - 16
CAT./HAUL	- 2.3	MAX. SIZE - 143

MAY	860519 - 860521	
NO. CGHT.	- 687	MEAN SIZE - 75.5
NO. MEAS.	- 687	S.E. SIZE - 2.3
NO. HAULS	- 37	MIN. SIZE - 19
CAT./HAUL	- 18.6	MAX. SIZE - 210

JUNE	860601 - 860619	
NO. CGHT.	- 2031	MEAN SIZE - 101.7
NO. MEAS.	- 2031	S.E. SIZE - 1
NO. HAULS	- 35	MIN. SIZE - 27
CAT./HAUL	- 58	MAX. SIZE - 300

JULY	860721 - 860724	
NO. CGHT.	- 1737	MEAN SIZE - 108.2
NO. MEAS.	- 1737	S.E. SIZE - 0.4
NO. HAULS	- 37	MIN. SIZE - 20
CAT./HAUL	- 46.9	MAX. SIZE - 221

AUGUST	860819 - 860822	
NO. CGHT.	- 1049	MEAN SIZE - 125.6
NO. MEAS.	- 1049	S.E. SIZE - 0.7
NO. HAULS	- 37	MIN. SIZE - 18
CAT./HAUL	- 28.4	MAX. SIZE - 231

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 3765	MEAN SIZE - 128.5
NO. MEAS.	- 3765	S.E. SIZE - 0.3
NO. HAULS	- 37	MIN. SIZE - 76
CAT./HAUL	- 101.8	MAX. SIZE - 262

OCTOBER	861020 - 861024	
NO. CGHT.	- 3107	MEAN SIZE - 131.9
NO. MEAS.	- 3107	S.E. SIZE - 0.3
NO. HAULS	- 37	MIN. SIZE - 26
CAT./HAUL	- 84	MAX. SIZE - 222

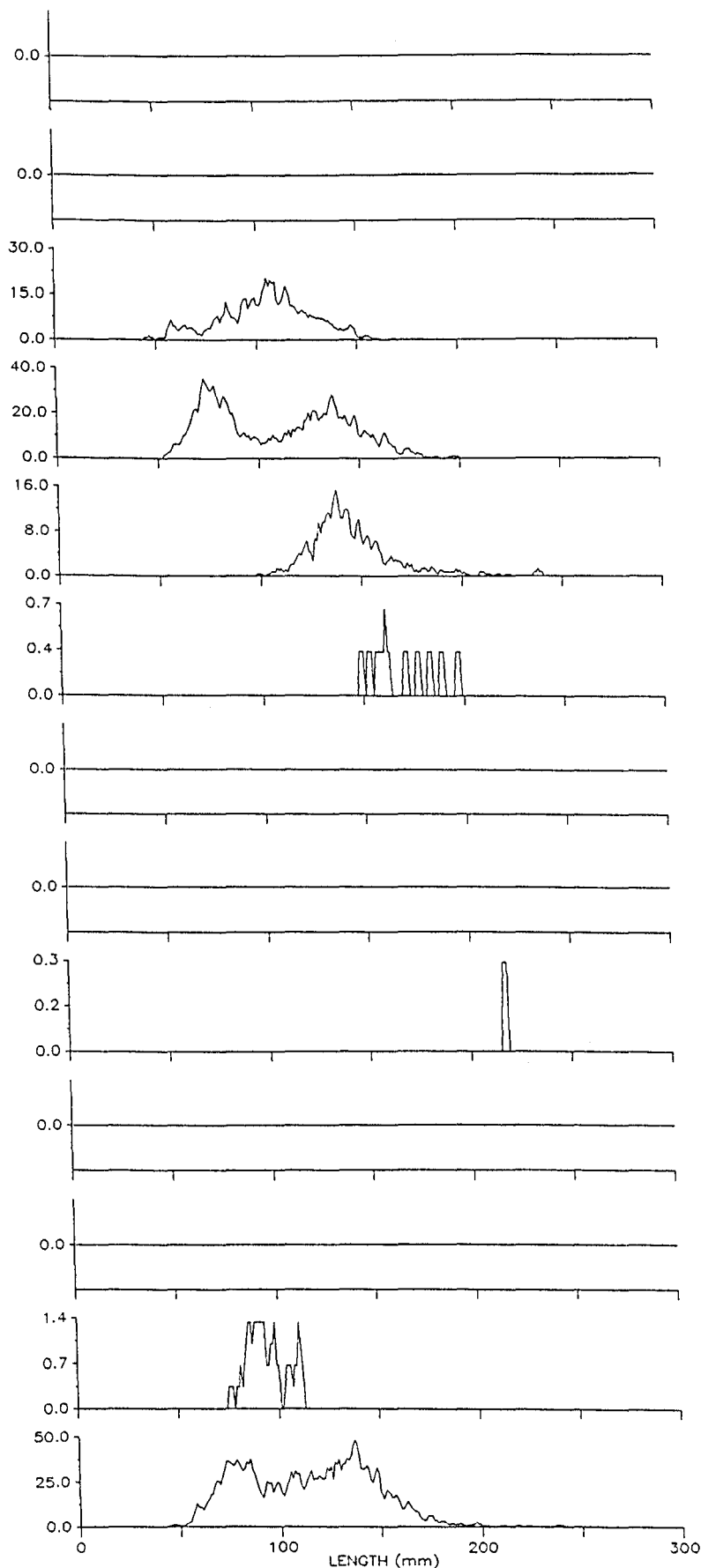
NOVEMBER	861117 - 861120	
NO. CGHT.	- 1357	MEAN SIZE - 113.6
NO. MEAS.	- 1357	S.E. SIZE - 0.4
NO. HAULS	- 36	MIN. SIZE - 85
CAT./HAUL	- 37.7	MAX. SIZE - 201

DECEMBER	861215 - 861218	
NO. CGHT.	- 994	MEAN SIZE - 112.8
NO. MEAS.	- 994	S.E. SIZE - 0.3
NO. HAULS	- 23	MIN. SIZE - 29
CAT./HAUL	- 43.2	MAX. SIZE - 161

JAN - DEC	860120 - 861218	
NO. CGHT.	- 14782	MEAN SIZE - 117.7
NO. MEAS.	- 14782	S.E. SIZE - 0.3
NO. HAULS	- 374	MIN. SIZE - 16
CAT./HAUL	- 39.5	MAX. SIZE - 300

Figure 69.

Spotted Hake



JANUARY 860120 - 860129
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 22 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

FEBRUARY 860220 - 860225
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 24 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

MARCH 860324 - 860326
 NO. CGHT. - 788 MEAN SIZE - 103
 NO. MEAS. - 788 S.E. SIZE - 0.8
 NO. HAULS - 25 MIN. SIZE - 44
 CAT./HAUL - 31.5 MAX. SIZE - 166

APRIL 860414 - 860416
 NO. CGHT. - 1729 MEAN SIZE - 107.9
 NO. MEAS. - 1729 S.E. SIZE - 0.8
 NO. HAULS - 24 MIN. SIZE - 52
 CAT./HAUL - 72 MAX. SIZE - 196

MAY 860519 - 860521
 NO. CGHT. - 424 MEAN SIZE - 143.2
 NO. MEAS. - 424 S.E. SIZE - 1
 NO. HAULS - 37 MIN. SIZE - 97
 CAT./HAUL - 11.5 MAX. SIZE - 237

JUNE 860601 - 860619
 NO. CGHT. - 10 MEAN SIZE - 167.8
 NO. MEAS. - 10 S.E. SIZE - 5.1
 NO. HAULS - 35 MIN. SIZE - 147
 CAT./HAUL - 0.3 MAX. SIZE - 195

JULY 860721 - 860724
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

AUGUST 860819 - 860822
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

SEPTEMBER 860922 - 860926
 NO. CGHT. - 1 MEAN SIZE - 215
 NO. MEAS. - 1 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE - 215
 CAT./HAUL - 0 MAX. SIZE - 215

OCTOBER 861020 - 861024
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 37 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

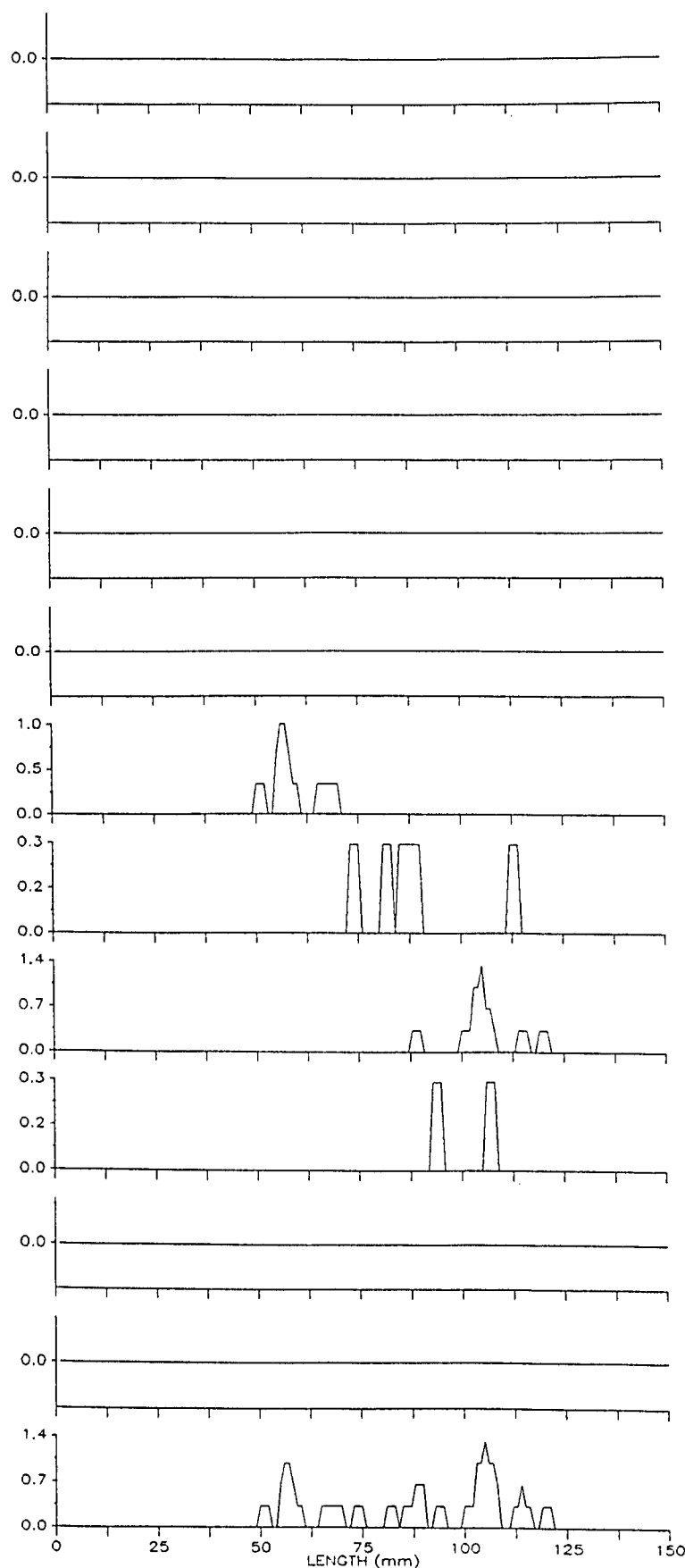
NOVEMBER 861117 - 861120
 NO. CGHT. - 0 MEAN SIZE -
 NO. MEAS. - 0 S.E. SIZE -
 NO. HAULS - 36 MIN. SIZE -
 CAT./HAUL - 0 MAX. SIZE -

DECEMBER 861215 - 861218
 NO. CGHT. - 29 MEAN SIZE - 92.1
 NO. MEAS. - 29 S.E. SIZE - 1.8
 NO. HAULS - 23 MIN. SIZE - 74
 CAT./HAUL - 1.3 MAX. SIZE - 109

JAN - DEC 860120 - 861218
 NO. CGHT. - 2981 MEAN SIZE - 111.7
 NO. MEAS. - 2981 S.E. SIZE - 0.6
 NO. HAULS - 374 MIN. SIZE - 44
 CAT./HAUL - 8 MAX. SIZE - 237

Figure 70.

Striped Anchovy



JANUARY	860120 - 860129	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	22	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

FEBRUARY	860220 - 860225	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	24	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

MARCH	860324 - 860326	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	25	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

APRIL	860414 - 860416	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	24	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

MAY	860519 - 860521	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	37	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

JUNE	860601 - 860619	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	35	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

JULY	860721 - 860724	
NO. CGHT.	7	MEAN SIZE - 57.1
NO. MEAS.	7	S.E. SIZE - 2.4
NO. HAULS	37	MIN. SIZE - 49
CAT./HAUL	0.2	MAX. SIZE - 67

AUGUST	860819 - 860822	
NO. CGHT.	5	MEAN SIZE - 86.8
NO. MEAS.	5	S.E. SIZE - 6.6
NO. HAULS	37	MIN. SIZE - 72
CAT./HAUL	0.1	MAX. SIZE - 111

SEPTEMBER	860922 - 860926	
NO. CGHT.	9	MEAN SIZE - 103.6
NO. MEAS.	9	S.E. SIZE - 2.9
NO. HAULS	37	MIN. SIZE - 87
CAT./HAUL	0.2	MAX. SIZE - 118

OCTOBER	861020 - 861024	
NO. CGHT.	2	MEAN SIZE - 98.5
NO. MEAS.	2	S.E. SIZE - 6.5
NO. HAULS	37	MIN. SIZE - 92
CAT./HAUL	0.1	MAX. SIZE - 105

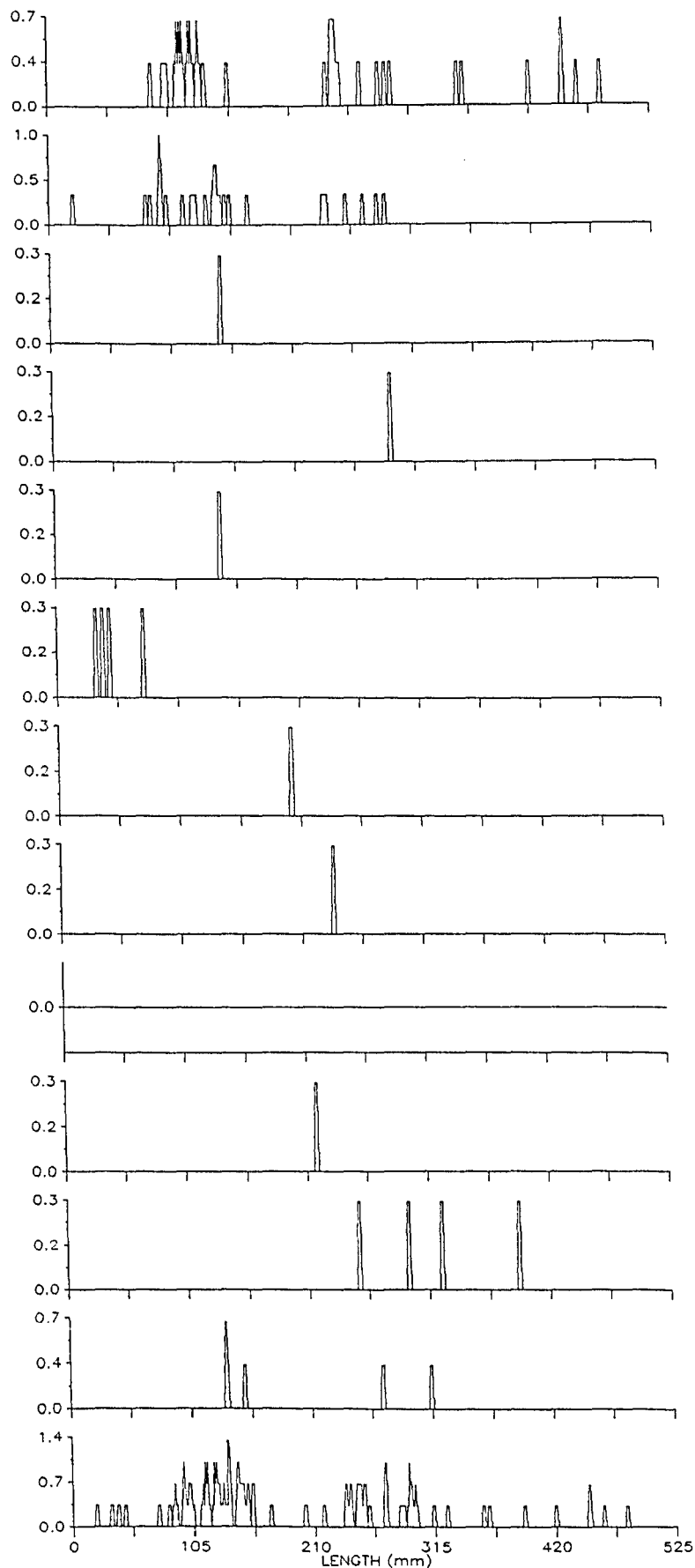
NOVEMBER	861117 - 861120	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	36	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

DECEMBER	861215 - 861218	
NO. CGHT.	0	MEAN SIZE -
NO. MEAS.	0	S.E. SIZE -
NO. HAULS	23	MIN. SIZE -
CAT./HAUL	0	MAX. SIZE -

JAN - DEC	860120 - 861218	
NO. CGHT.	23	MEAN SIZE - 85.3
NO. MEAS.	23	S.E. SIZE - 4.6
NO. HAULS	374	MIN. SIZE - 49
CAT./HAUL	0.1	MAX. SIZE - 118

Figure 71.

Striped Bass



JANUARY 860120 - 860129
 NO. CGHT. - 31 MEAN SIZE - 233.7
 NO. MEAS. - 31 S.E. SIZE - 22.5
 NO. HAULS - 22 MIN. SIZE - 88
 CAT./HAUL - 1.4 MAX. SIZE - 480

FEBRUARY 860220 - 860225
 NO. CGHT. - 24 MEAN SIZE - 153.6
 NO. MEAS. - 24 S.E. SIZE - 14.7
 NO. HAULS - 24 MIN. SIZE - 19
 CAT./HAUL - 1 MAX. SIZE - 290

MARCH 860324 - 860326
 NO. CGHT. - 1 MEAN SIZE - 145
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 25 MIN. SIZE - 145
 CAT./HAUL - 0 MAX. SIZE - 145

APRIL 860414 - 860416
 NO. CGHT. - 1 MEAN SIZE - 292
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 24 MIN. SIZE - 292
 CAT./HAUL - 0 MAX. SIZE - 292

MAY 860519 - 860521
 NO. CGHT. - 1 MEAN SIZE - 141
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - 141
 CAT./HAUL - 0 MAX. SIZE - 141

JUNE 860601 - 860619
 NO. CGHT. - 4 MEAN SIZE - 46.8
 NO. MEAS. - 4 S.E. SIZE - 9.1
 NO. HAULS - 35 MIN. SIZE - 32
 CAT./HAUL - 0.1 MAX. SIZE - 73

JULY 860721 - 860724
 NO. CGHT. - 1 MEAN SIZE - 200
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - 200
 CAT./HAUL - 0 MAX. SIZE - 200

AUGUST 860819 - 860822
 NO. CGHT. - 1 MEAN SIZE - 235
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - 235
 CAT./HAUL - 0 MAX. SIZE - 235

SEPTEMBER 860922 - 860926
 NO. CGHT. - 0 MEAN SIZE - .
 NO. MEAS. - 0 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - .
 CAT./HAUL - 0 MAX. SIZE - .

OCTOBER 861020 - 861024
 NO. CGHT. - 1 MEAN SIZE - 216
 NO. MEAS. - 1 S.E. SIZE - .
 NO. HAULS - 37 MIN. SIZE - 216
 CAT./HAUL - 0 MAX. SIZE - 216

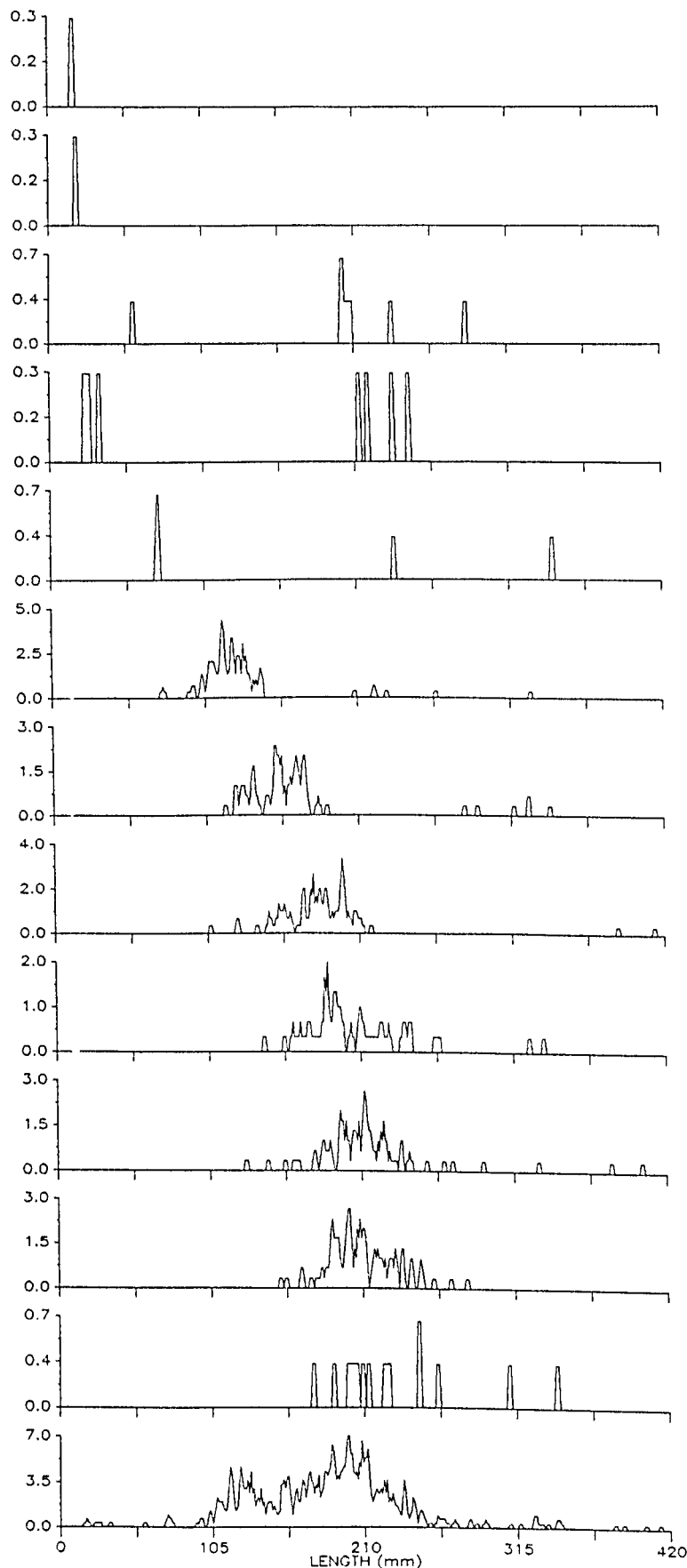
NOVEMBER 861117 - 861120
 NO. CGHT. - 4 MEAN SIZE - 315.5
 NO. MEAS. - 4 S.E. SIZE - 29.2
 NO. HAULS - 36 MIN. SIZE - 252
 CAT./HAUL - 0.1 MAX. SIZE - 391

DECEMBER 861215 - 861218
 NO. CGHT. - 5 MEAN SIZE - 199.6
 NO. MEAS. - 5 S.E. SIZE - 38
 NO. HAULS - 23 MIN. SIZE - 133
 CAT./HAUL - 0.2 MAX. SIZE - 312

JAN - DEC 860120 - 861218
 NO. CGHT. - 74 MEAN SIZE - 197.4
 NO. MEAS. - 74 S.E. SIZE - 12.8
 NO. HAULS - 374 MIN. SIZE - 19
 CAT./HAUL - 0.2 MAX. SIZE - 480

Figure 72.

Summer Flounder



JANUARY	860120 - 860129	
NO. CGHT.	- 1	MEAN SIZE - 15
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 22	MIN. SIZE - 15
CAT./HAUL	- 0	MAX. SIZE - 15

FEBRUARY	860220 - 860225	
NO. CGHT.	- 1	MEAN SIZE - 17
NO. MEAS.	- 1	S.E. SIZE - .
NO. HAULS	- 24	MIN. SIZE - 17
CAT./HAUL	- 0	MAX. SIZE - 17

MARCH	860324 - 860326	
NO. CGHT.	- 7	MEAN SIZE - 197.7
NO. MEAS.	- 7	S.E. SIZE - 26.3
NO. HAULS	- 25	MIN. SIZE - 56
CAT./HAUL	- 0.3	MAX. SIZE - 285

APRIL	860414 - 860416	
NO. CGHT.	- 7	MEAN SIZE - 140.9
NO. MEAS.	- 7	S.E. SIZE - 40.7
NO. HAULS	- 24	MIN. SIZE - 22
CAT./HAUL	- 0.3	MAX. SIZE - 245

MAY	860519 - 860521	
NO. CGHT.	- 4	MEAN SIZE - 180
NO. MEAS.	- 4	S.E. SIZE - 66.5
NO. HAULS	- 37	MIN. SIZE - 71
CAT./HAUL	- 0.1	MAX. SIZE - 343

JUNE	860601 - 860619	
NO. CGHT.	- 88	MEAN SIZE - 126.9
NO. MEAS.	- 88	S.E. SIZE - 3.8
NO. HAULS	- 35	MIN. SIZE - 73
CAT./HAUL	- 2.5	MAX. SIZE - 327

JULY	860721 - 860724	
NO. CGHT.	- 67	MEAN SIZE - 172
NO. MEAS.	- 67	S.E. SIZE - 8
NO. HAULS	- 37	MIN. SIZE - 116
CAT./HAUL	- 1.8	MAX. SIZE - 520

AUGUST	860819 - 860822	
NO. CGHT.	- 81	MEAN SIZE - 185.7
NO. MEAS.	- 81	S.E. SIZE - 5.5
NO. HAULS	- 37	MIN. SIZE - 105
CAT./HAUL	- 2.2	MAX. SIZE - 438

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 51	MEAN SIZE - 203.7
NO. MEAS.	- 51	S.E. SIZE - 5.2
NO. HAULS	- 37	MIN. SIZE - 141
CAT./HAUL	- 1.4	MAX. SIZE - 334

OCTOBER	861020 - 861024	
NO. CGHT.	- 73	MEAN SIZE - 216.3
NO. MEAS.	- 73	S.E. SIZE - 5.8
NO. HAULS	- 37	MIN. SIZE - 128
CAT./HAUL	- 2	MAX. SIZE - 426

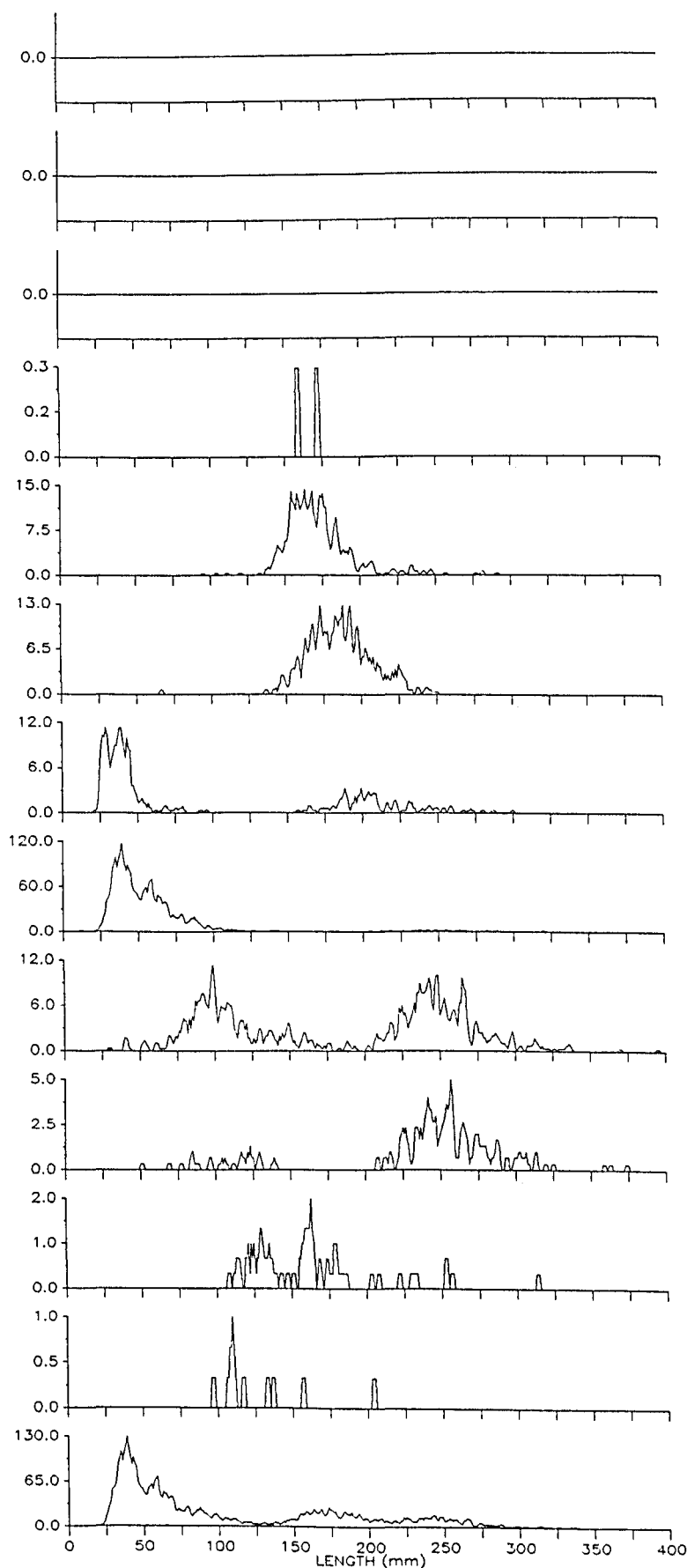
NOVEMBER	861117 - 861120	
NO. CGHT.	- 85	MEAN SIZE - 207.6
NO. MEAS.	- 85	S.E. SIZE - 2.6
NO. HAULS	- 36	MIN. SIZE - 151
CAT./HAUL	- 2.4	MAX. SIZE - 280

DECEMBER	861215 - 861218	
NO. CGHT.	- 14	MEAN SIZE - 230.4
NO. MEAS.	- 14	S.E. SIZE - 12.5
NO. HAULS	- 23	MIN. SIZE - 173
CAT./HAUL	- 0.6	MAX. SIZE - 341

JAN - DEC	860120 - 861218	
NO. CGHT.	- 479	MEAN SIZE - 183.5
NO. MEAS.	- 479	S.E. SIZE - 2.6
NO. HAULS	- 374	MIN. SIZE - 15
CAT./HAUL	- 1.3	MAX. SIZE - 520

Figure 73.

Weakfish



JANUARY	860120 - 860129	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 22	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

FEBRUARY	860220 - 860225	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 24	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

MARCH	860324 - 860326	
NO. CGHT.	- 0	MEAN SIZE - .
NO. MEAS.	- 0	S.E. SIZE - .
NO. HAULS	- 25	MIN. SIZE - .
CAT./HAUL	- 0	MAX. SIZE - .

APRIL	860414 - 860416	
NO. CGHT.	- 2	MEAN SIZE - 163.5
NO. MEAS.	- 2	S.E. SIZE - 6.5
NO. HAULS	- 24	MIN. SIZE - 157
CAT./HAUL	- 0.1	MAX. SIZE - 170

MAY	860519 - 860521	
NO. CGHT.	- 504	MEAN SIZE - 170.1
NO. MEAS.	- 504	S.E. SIZE - 1
NO. HAULS	- 37	MIN. SIZE - 93
CAT./HAUL	- 13.6	MAX. SIZE - 289

JUNE	860601 - 860619	
NO. CGHT.	- 520	MEAN SIZE - 184
NO. MEAS.	- 520	S.E. SIZE - 1
NO. HAULS	- 35	MIN. SIZE - 64
CAT./HAUL	- 14.9	MAX. SIZE - 248

JULY	860721 - 860724	
NO. CGHT.	- 342	MEAN SIZE - 91.8
NO. MEAS.	- 342	S.E. SIZE - 4.4
NO. HAULS	- 37	MIN. SIZE - 20
CAT./HAUL	- 9.2	MAX. SIZE - 298

AUGUST	860819 - 860822	
NO. CGHT.	- 3256	MEAN SIZE - 54.2
NO. MEAS.	- 3256	S.E. SIZE - 0.6
NO. HAULS	- 37	MIN. SIZE - 19
CAT./HAUL	- 88	MAX. SIZE - 318

SEPTEMBER	860922 - 860926	
NO. CGHT.	- 765	MEAN SIZE - 182.8
NO. MEAS.	- 765	S.E. SIZE - 2.8
NO. HAULS	- 37	MIN. SIZE - 28
CAT./HAUL	- 20.7	MAX. SIZE - 424

OCTOBER	861020 - 861024	
NO. CGHT.	- 182	MEAN SIZE - 234.6
NO. MEAS.	- 182	S.E. SIZE - 4.4
NO. HAULS	- 37	MIN. SIZE - 49
CAT./HAUL	- 4.9	MAX. SIZE - 372

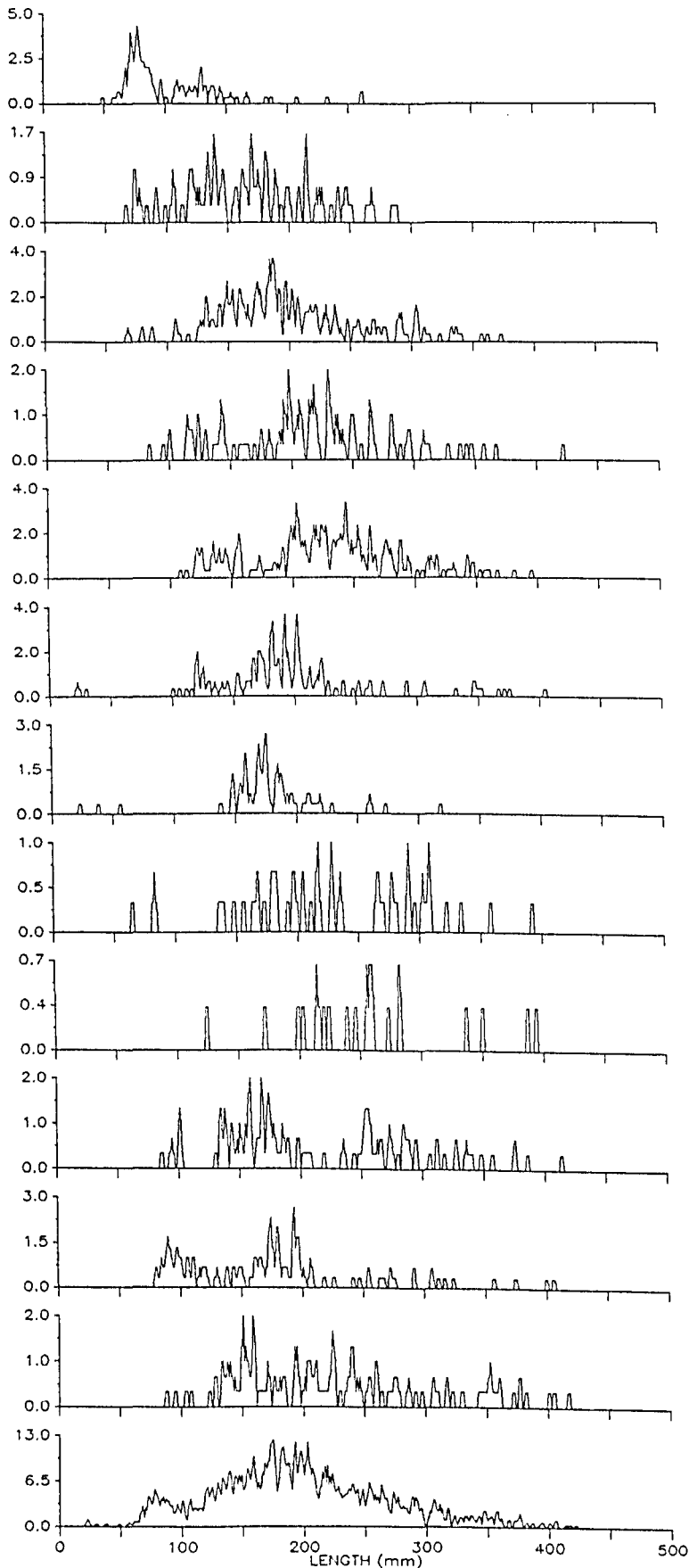
NOVEMBER	861117 - 861120	
NO. CGHT.	- 55	MEAN SIZE - 161.3
NO. MEAS.	- 55	S.E. SIZE - 5.7
NO. HAULS	- 36	MIN. SIZE - 106
CAT./HAUL	- 1.5	MAX. SIZE - 312

DECEMBER	861215 - 861218	
NO. CGHT.	- 10	MEAN SIZE - 126.2
NO. MEAS.	- 10	S.E. SIZE - 10.1
NO. HAULS	- 23	MIN. SIZE - 95
CAT./HAUL	- 0.4	MAX. SIZE - 202

JAN - DEC	860120 - 861218	
NO. CGHT.	- 5636	MEAN SIZE - 103.3
NO. MEAS.	- 5636	S.E. SIZE - 1
NO. HAULS	- 374	MIN. SIZE - 19
CAT./HAUL	- 15.1	MAX. SIZE - 424

Figure 74.

White Catfish



JANUARY 860120 - 860129
 NO. CGHT. - 117 MEAN SIZE - 101.5
 NO. MEAS. - 117 S.E. SIZE - 3.7
 NO. HAULS - 22 MIN. SIZE - 47
 CAT./HAUL - 5.3 MAX. SIZE - 259

FEBRUARY 860220 - 860225
 NO. CGHT. - 89 MEAN SIZE - 165.3
 NO. MEAS. - 89 S.E. SIZE - 5.7
 NO. HAULS - 24 MIN. SIZE - 65
 CAT./HAUL - 3.7 MAX. SIZE - 286

MARCH 860324 - 860326
 NO. CGHT. - 230 MEAN SIZE - 197.7
 NO. MEAS. - 230 S.E. SIZE - 3.9
 NO. HAULS - 25 MIN. SIZE - 65
 CAT./HAUL - 9.2 MAX. SIZE - 371

APRIL 860414 - 860416
 NO. CGHT. - 102 MEAN SIZE - 213
 NO. MEAS. - 102 S.E. SIZE - 6.6
 NO. HAULS - 24 MIN. SIZE - 82
 CAT./HAUL - 4.3 MAX. SIZE - 420

MAY 860519 - 860521
 NO. CGHT. - 215 MEAN SIZE - 226
 NO. MEAS. - 215 S.E. SIZE - 4.1
 NO. HAULS - 37 MIN. SIZE - 106
 CAT./HAUL - 5.8 MAX. SIZE - 393

JUNE 860601 - 860619
 NO. CGHT. - 141 MEAN SIZE - 193.8
 NO. MEAS. - 141 S.E. SIZE - 5.3
 NO. HAULS - 35 MIN. SIZE - 20
 CAT./HAUL - 4 MAX. SIZE - 403

JULY 860721 - 860724
 NO. CGHT. - 69 MEAN SIZE - 174.9
 NO. MEAS. - 69 S.E. SIZE - 5.2
 NO. HAULS - 37 MIN. SIZE - 21
 CAT./HAUL - 1.9 MAX. SIZE - 316

AUGUST 860819 - 860822
 NO. CGHT. - 50 MEAN SIZE - 226.4
 NO. MEAS. - 50 S.E. SIZE - 10.1
 NO. HAULS - 37 MIN. SIZE - 63
 CAT./HAUL - 1.4 MAX. SIZE - 390

SEPTEMBER 860922 - 860926
 NO. CGHT. - 21 MEAN SIZE - 254.9
 NO. MEAS. - 21 S.E. SIZE - 14.6
 NO. HAULS - 37 MIN. SIZE - 122
 CAT./HAUL - 0.6 MAX. SIZE - 392

OCTOBER 861020 - 861024
 NO. CGHT. - 107 MEAN SIZE - 213.2
 NO. MEAS. - 107 S.E. SIZE - 7.3
 NO. HAULS - 37 MIN. SIZE - 84
 CAT./HAUL - 2.9 MAX. SIZE - 412

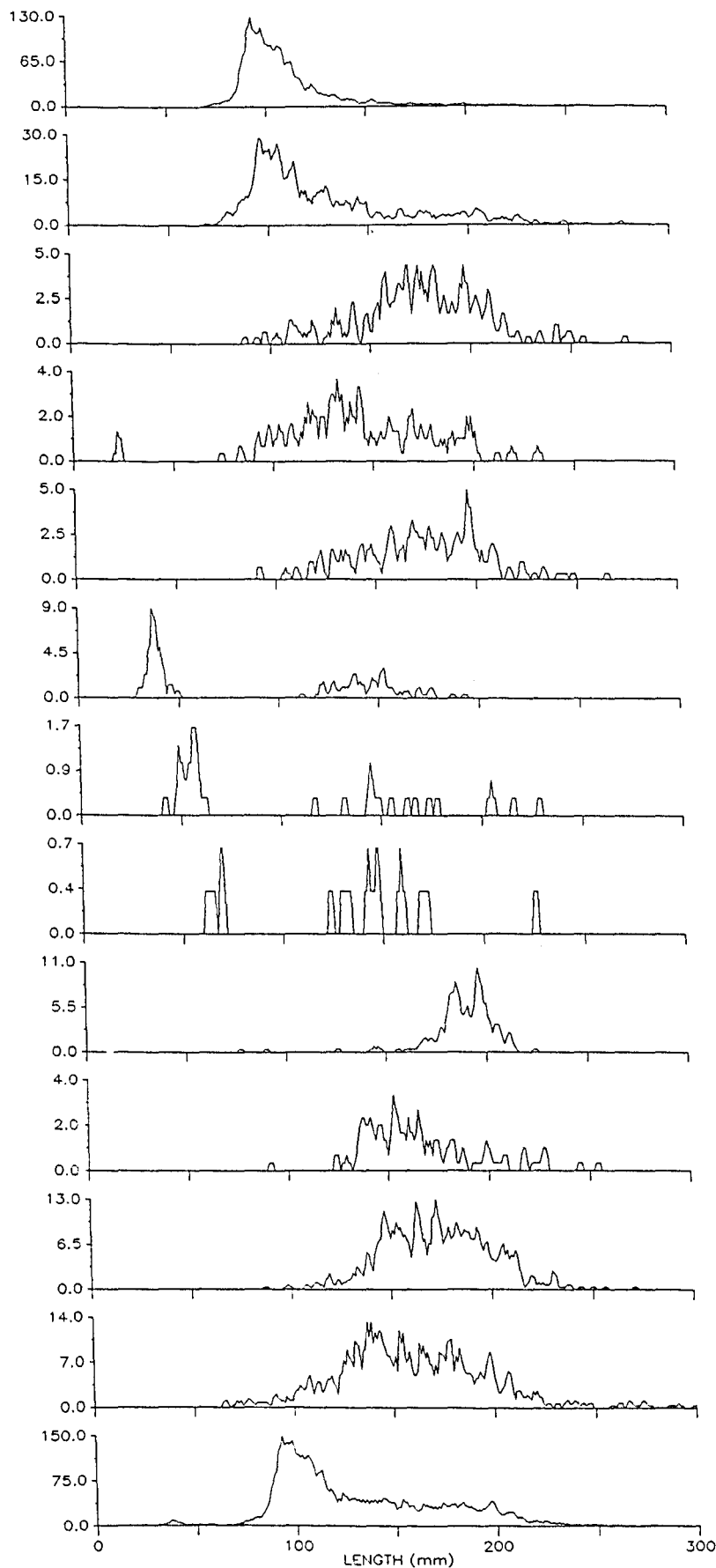
NOVEMBER 861117 - 861120
 NO. CGHT. - 116 MEAN SIZE - 174.1
 NO. MEAS. - 116 S.E. SIZE - 6.7
 NO. HAULS - 36 MIN. SIZE - 78
 CAT./HAUL - 3.2 MAX. SIZE - 404

DECEMBER 861215 - 861218
 NO. CGHT. - 120 MEAN SIZE - 223.2
 NO. MEAS. - 120 S.E. SIZE - 7.1
 NO. HAULS - 23 MIN. SIZE - 86
 CAT./HAUL - 5.2 MAX. SIZE - 415

JAN - DEC 860120 - 861218
 NO. CGHT. - 1377 MEAN SIZE - 194.8
 NO. MEAS. - 1377 S.E. SIZE - 1.9
 NO. HAULS - 374 MIN. SIZE - 20
 CAT./HAUL - 3.7 MAX. SIZE - 420

Figure 75.

White Perch



JANUARY 860120 - 860129
 NO. CGHT. - 3417 MEAN SIZE - 106.1
 NO. MEAS. - 3417 S.E. SIZE - 0.4
 NO. HAULS - 22 MIN. SIZE - 67
 CAT./HAUL - 155.3 MAX. SIZE - 292

FEBRUARY 860220 - 860225
 NO. CGHT. - 1176 MEAN SIZE - 126.6
 NO. MEAS. - 1176 S.E. SIZE - 1.2
 NO. HAULS - 24 MIN. SIZE - 67
 CAT./HAUL - 49 MAX. SIZE - 275

MARCH 860324 - 860326
 NO. CGHT. - 228 MEAN SIZE - 173
 NO. MEAS. - 228 S.E. SIZE - 2.2
 NO. HAULS - 25 MIN. SIZE - 85
 CAT./HAUL - 9.1 MAX. SIZE - 275

APRIL 860414 - 860416
 NO. CGHT. - 172 MEAN SIZE - 140.2
 NO. MEAS. - 172 S.E. SIZE - 2.9
 NO. HAULS - 24 MIN. SIZE - 19
 CAT./HAUL - 7.2 MAX. SIZE - 231

MAY 860519 - 860521
 NO. CGHT. - 185 MEAN SIZE - 170.5
 NO. MEAS. - 185 S.E. SIZE - 2.3
 NO. HAULS - 37 MIN. SIZE - 90
 CAT./HAUL - 5 MAX. SIZE - 263

JUNE 860601 - 860619
 NO. CGHT. - 130 MEAN SIZE - 90.5
 NO. MEAS. - 130 S.E. SIZE - 4.9
 NO. HAULS - 35 MIN. SIZE - 28
 CAT./HAUL - 3.7 MAX. SIZE - 191

JULY 860721 - 860724
 NO. CGHT. - 31 MEAN SIZE - 107.2
 NO. MEAS. - 31 S.E. SIZE - 11.2
 NO. HAULS - 37 MIN. SIZE - 40
 CAT./HAUL - 0.8 MAX. SIZE - 227

AUGUST 860819 - 860822
 NO. CGHT. - 16 MEAN SIZE - 130.4
 NO. MEAS. - 16 S.E. SIZE - 11.4
 NO. HAULS - 37 MIN. SIZE - 60
 CAT./HAUL - 0.4 MAX. SIZE - 224

SEPTEMBER 860922 - 860926
 NO. CGHT. - 205 MEAN SIZE - 186.7
 NO. MEAS. - 205 S.E. SIZE - 1.2
 NO. HAULS - 37 MIN. SIZE - 75
 CAT./HAUL - 5.5 MAX. SIZE - 222

OCTOBER 861020 - 861024
 NO. CGHT. - 109 MEAN SIZE - 165.6
 NO. MEAS. - 109 S.E. SIZE - 3.2
 NO. HAULS - 37 MIN. SIZE - 89
 CAT./HAUL - 2.9 MAX. SIZE - 346

NOVEMBER 861117 - 861120
 NO. CGHT. - 638 MEAN SIZE - 171
 NO. MEAS. - 638 S.E. SIZE - 1.1
 NO. HAULS - 36 MIN. SIZE - 85
 CAT./HAUL - 17.7 MAX. SIZE - 269

DECEMBER 861215 - 861218
 NO. CGHT. - 810 MEAN SIZE - 157.2
 NO. MEAS. - 810 S.E. SIZE - 1.3
 NO. HAULS - 23 MIN. SIZE - 63
 CAT./HAUL - 35.2 MAX. SIZE - 297

JAN - DEC 860120 - 861218
 NO. CGHT. - 7117 MEAN SIZE - 128.8
 NO. MEAS. - 7117 S.E. SIZE - 0.5
 NO. HAULS - 374 MIN. SIZE - 19
 CAT./HAUL - 19 MAX. SIZE - 346

Table 1.

VIMS codes for selected parameters as used in the trawl survey database. These same codes appear in several of the included tables and figures.

TOWDIR 1: up or down stream

- 1: Upstream
- 2: Downstream
- 3: Slack

TOWDIR2: Tow Direction, relative to current

- | | |
|------------------|--------------------|
| 1: With | 4: Oblique with |
| 2: Against | 5: Oblique against |
| 3: Perpendicular | 6: Slack |

TIDE: Tidal stage

- | | |
|---------------------|-----------------------|
| 1: Early flood | 5: Early ebb |
| 2: Maximum flood | 6: Maximum ebb |
| 3: Late flood | 7: Late ebb |
| 4: Slack before ebb | 8: Slack before flood |

SEASTATE

- | | |
|-----------------------------|--------------------|
| 0: Calm-glassy 0m | 5: Rough 2.5-4m |
| 1: Calm-rippled 0-0.1m | 6: Very rough 4-6m |
| 2: Smooth-wavelets 0.1-0.5m | 7: High 6-9m |
| 3: Slight 0.5-1.25m | 8: Very high 9-14m |
| 4: Moderate 1.25-2.5m | 9: Phenomenal >14m |

WEATHER: Observed weather

- | | |
|--------------------------------------|---------------------------|
| 1: Clear-no cloud at any level | 5: Drizzle |
| 2: Partly cloudy-scattered or broken | 6: Rain |
| 3: Overcast | 7: Snow-rain and snow mix |
| 4: Sand, dust storm, or blowing snow | 8: Showers |
| 5: Fog-thick, dust, or haze | 9: Thunderstorms |

Tables 2-13. Station data for the river trawl survey by month.

Explanation: To conserve space, some variables are presented as coded values, code keys are presented in Table 1 (p. 117). No ending latitude or longitude was taken for each station, therefore a tow distance was unable to be calculated.

Table 2.

January

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860101	YK	2	19860124	3713.60	7624.10	.	.	.	11.9	1	1	1	3
860101	YK	5	19860124	3713.70	7628.70	.	.	.	7.1	1	1	1	3
860101	YK	10	19860124	3718.90	7635.30	.	.	.	8.8	1	1	1	3
860101	YK	15	19860124	3723.40	7639.50	.	.	.	7.9	1	1	1	3
860101	YK	20	19860124	3725.90	7642.30	.	.	.	6.7	1	1	3	3
860101	YK	25	19860124	3729.00	7645.00	.	.	.	9.0	1	1	4	3
860102	JA	1	19860120	3659.60	7619.70	.	.	.	9.0	1	2	4	5
860102	JC	1	19860120	3715.10	7652.60	.	.	.	5.4	1	2	4	5
860102	JA	5	19860120	3657.20	7623.60	.	.	.	10.9	1	2	4	5
860102	JA	13	19860120	3701.40	7630.40	.	.	.	6.7	2	1	4	5
860102	JA	17	19860120	3704.50	7636.40	.	.	.	.	1	2	3	6
860102	JA	24	19860120	3709.30	7638.20	.	.	.	.	1	2	3	6
860102	JA	27	19860120	3712.60	7639.40	.	.	.	.	1	2	2	5
860102	JA	35	19860120	3711.40	7645.90	.	.	.	.	1	2	3	6
860102	JA	40	19860120	3713.40	7648.90	.	.	.	.	1	2	3	6
860103	RA	2	19860129	3735.90	7621.20	.	.	.	2.0	1	2	2	7
860103	RA	10	19860129	3737.90	7628.60	.	.	.	18.0	1	2	2	7
860103	RA	15	19860129	3740.20	7633.00	.	.	.	13.7	1	1	2	1
860103	RA	20	19860129	3744.20	7635.20	.	.	.	9.0	1	1	2	1
860103	RA	25	19860129	3747.40	7640.60	.	.	.	7.6	1	1	1	1
860103	RA	30	19860129	3751.30	7645.40	.	.	.	5.1	1	1	1	1
860103	RA	35	19860129	3754.80	7648.80	.	.	.	5.1	1	1	1	2

Table 3.

February

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860201	JA	1	19860220	3659.60	7619.70	.	.	.	7.0	1	1	1	0
860201	JC	1	19860220	3715.10	7652.60	.	.	.	7.0	1	1	0	0
860201	JA	5	19860220	3657.20	7623.60	.	.	.	5.0	1	1	2	0
860201	JA	13	19860220	3701.40	7630.40	.	.	.	14.0	1	1	1	0
860201	JA	17	19860220	3704.50	7636.40	.	.	.	5.0	1	1	1	0
860201	JA	24	19860220	3709.30	7638.20	.	.	.	.	1	1	1	0
860201	JA	27	19860220	3712.60	7639.40	.	.	.	9.0	1	1	1	0
860201	JA	35	19860220	3711.40	7645.90	.	.	.	.	1	1	1	0
860201	JA	40	19860220	3713.40	7648.90	.	.	.	.	1	1	1	0
860202	YK	2	19860221	3713.60	7624.10	.	.	.	3.0	1	1	0	0
860202	YK	5	19860221	3713.70	7628.40	.	.	.	11.0	1	1	0	0
860202	YK	10	19860221	3718.60	7635.20	.	.	.	13.0	1	1	0	0
860202	YK	15	19860221	3723.40	7639.40	.	.	.	7.0	1	1	0	0
860202	YK	20	19860221	3725.90	7642.30	.	.	.	6.0	1	1	0	0
860202	YK	25	19860221	3729.00	7645.00	.	.	.	7.6	1	1	0	0
860202	YK	30	19860221	3732.90	7649.60	.	.	.	7.0	1	1	1	0
860202	YK	35	19860221	3733.10	7651.80	.	.	.	9.0	1	1	1	0
860203	RA	2	19860225	3735.80	7621.60	.	.	.	6.0	1	1	3	0
860203	RA	10	19860225	3737.80	7628.50	.	.	.	18.0	2	1	3	0
860203	RA	15	19860225	3739.70	7633.20	.	.	.	17.0	1	1	3	0
860203	RA	20	19860225	3744.50	7635.70	.	.	.	.	1	1	3	0
860203	RA	25	19860225	3747.30	7640.40	.	.	.	14.0	1	1	3	0
860203	RA	30	19860225	3750.60	7644.80	.	.	.	8.0	1	1	3	0
860203	RA	35	19860225	3754.70	7648.60	.	.	.	6.0	1	1	3	0

Table 4.

March

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860301	YK	2	19860324	3713.60	7624.10	.	.	.	11.0	1	1	0	3
860301	YK	5	19860324	3713.70	7628.40	.	.	.	14.0	1	1	0	3
860301	YK	10	19860324	3718.80	7635.40	.	.	.	7.9	1	1	0	3
860301	YK	15	19860324	3723.30	7639.40	.	.	.	8.8	1	1	0	3
860301	YK	20	19860324	3725.80	7642.30	.	.	.	9.1	1	1	0	3
860301	YK	25	19860324	3729.00	7645.00	.	.	.	7.3	1	1	0	3
860301	YK	30	19860324	3732.90	7649.60	.	.	.	9.1	1	1	0	3
860301	YK	35	19860324	3733.20	7651.70	.	.	.	8.5	1	1	0	3
860302	JA	1	19860326	3659.60	7619.70	.	.	.	7.3	1	1	0	1
860302	JC	1	19860326	3715.10	7652.60	.	.	.	6.7	1	1	0	1
860302	JA	5	19860326	3657.20	7623.60	.	.	.	7.9	1	1	0	1
860302	JA	13	19860326	3701.40	7630.40	.	.	.	5.5	1	1	0	1
860302	JA	17	19860326	3704.50	7636.40	.	.	.	9.4	1	1	0	1
860302	JA	24	19860326	3709.30	7638.20	.	.	.	6.7	1	1	0	1
860302	JA	27	19860326	3712.60	7639.40	.	.	.	7.0	1	1	0	1
860302	JA	35	19860326	3711.40	7645.90	.	.	.	7.0	1	1	0	1
860302	JA	40	19860326	3713.40	7648.90	.	.	.	8.2	1	1	0	1
860303	RA	2	19860325	3735.80	7621.60	.	.	.	4.0	1	1	0	3
860303	RA	10	19860325	3737.80	7629.40	.	.	.	18.0	1	1	0	3
860303	RA	15	19860325	3740.20	7633.00	.	.	.	.	1	1	0	3
860303	RA	20	19860325	3744.40	7635.50	.	.	.	15.5	1	1	0	3
860303	RA	20	19860325	3744.40	7635.50	.	.	.	18.9	1	1	0	3
860303	RA	25	19860325	3747.40	7640.60	.	.	.	18.9	2	2	0	3
860303	RA	30	19860325	3751.50	7645.60	.	.	.	7.6	2	2	0	3
860303	RA	35	19860325	3754.80	7648.70	.	.	.	6.1	2	2	0	3

Table 5.

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860401	YK	2	19860414	3713.60	7624.10	.	.	.	10.7	1	1		
860401	YK	5	19860414	3713.60	7628.60	.	.	.	12.2	1	1		
860401	YK	10	19860414	3718.70	7635.40	.	.	.	8.5	1	1		
860401	YK	15	19860414	3723.30	7639.40	.	.	.	9.1	1	1		
860401	YK	20	19860414	3725.80	7642.40	.	.	.	6.1	1	1		
860401	YK	25	19860414	3727.80	7644.90	.	.	.	9.1	1	1		
860401	YK	30	19860414	3732.90	7649.60	.	.	.	7.3	1	1		
860401	YK	35	19860414	3733.00	7651.80	.	.	.	5.2	1	1		
860402	JC	1	19860415	3715.10	7652.60	.	.	.	10.4	1	1		
860402	JA	1	19860415	3659.60	7619.70	.	.	.	7.9	2	2		
860402	JA	5	19860415	3656.80	7623.40	.	.	.	5.8	1	1	2	
860402	JA	13	19860415	3701.60	7630.90	.	.	.	10.1	2	2	2	
860402	JA	17	19860415	3705.40	7636.80	.	.	.	7.0	2	2		
860402	JA	24	19860415	3709.50	7638.40	.	.	.	7.6	2	2		
860402	JA	27	19860415	3712.60	7639.40	.	.	.	7.9	2	2		
860402	JA	35	19860415	3711.40	7646.00	.	.	.	8.2	2	2	2	
860402	JA	40	19860415	3713.40	7648.90	.	.	.	3.4	2	2	2	
860403	RA	2	19860416	3736.00	7621.50	.	.	.	16.8	1	1		
860403	RA	10	19860416	3737.80	7628.90	.	.	.	16.8	1	1		
860403	RA	15	19860416	3740.20	7633.00	.	.	.	15.2	1	1		
860403	RA	20	19860416	3744.20	7635.30	.	.	.	18.9	1	1		
860403	RA	25	19860416	3747.40	7640.60	.	.	.	7.9	1	1		
860403	RA	30	19860416	3751.40	7645.40	.	.	.	5.5	1	1		
860403	RA	35	19860416	3754.50	7648.40	.	.	.	4.9	1	1		

Table 6.

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860501	YK	2	19860519	3713.60	7624.10	.	.	.	11.3	1		2	
860501	YK	5	19860519	3713.60	7628.60	.	.	.	12.8			2	6
860501	YK	10	19860519	3718.70	7635.40	.	.	.	7.9			2	6
860501	YK	10	19860519	3718.70	7635.40	.	.	.	8.2			2	6
860501	YK	15	19860519	3723.30	7639.40	.	.	.	6.7			1	6
860501	YK	15	19860519	3723.30	7639.40	.	.	.	9.4			1	6
860501	YK	20	19860519	3725.80	7642.40	.	.	.	.			1	6
860501	YK	20	19860519	3725.80	7642.40	.	.	.	.			1	6
860501	YK	25	19860519	3728.80	7644.90	.	.	.	7.6				6
860501	YK	25	19860519	3728.80	7644.90	.	.	.	.				4
860501	YK	30	19860519	3732.90	7649.60	.	.	.	.
860501	YK	35	19860519	3733.00	7651.80	.	.	.	5.8			1	6
860502	JC	1	19860520	3715.10	7652.60	.	.	.	6.7			1	2
860502	JA	1	19860520	3659.60	7619.70	.	.	.	.
860502	JA	5	19860520	3656.80	7623.40	.	.	.	5.5				
860502	JA	13	19860520	3701.60	7630.90	.	.	.	12.2			2	
860502	JA	13	19860520	3701.60	7630.90	.	.	.	12.2			2	
860502	JA	17	19860520	3705.40	7636.80	.	.	.	7.6			3	
860502	JA	17	19860520	3705.40	7636.80	.	.	.	7.6			3	
860502	JA	24	19860520	3709.50	7638.40	.	.	.	9.1				2
860502	JA	24	19860520	3709.50	7638.40	.	.	.	9.1				2
860502	JA	27	19860520	3712.60	7639.40	.	.	.	9.1			2	2
860502	JA	27	19860520	3712.60	7639.40	.	.	.	9.1			2	2
860502	JA	35	19860520	3711.40	7646.00	.	.	.	8.5			1	2
860502	JA	40	19860520	3713.40	7648.90	.	.	.	4.0				
860503	RA	2	19860521	3735.80	7621.60	.	.	.	16.8				
860503	RA	10	19860521	3737.80	7628.90	.	.	.	17.4				2
860503	RA	15	19860521	3740.20	7633.00	.	.	.	.				6
860503	RA	15	19860521	3740.20	7633.00	.	.	.	14.6			1	
860503	RA	20	19860521	3744.20	7635.30	.	.	.	16.5				
860503	RA	20	19860521	3744.20	7635.30	.	.	.	13.7				2
860503	RA	25	19860521	3747.40	7640.60	.	.	.	4.6				8
860503	RA	25	19860521	3747.40	7640.60	.	.	.	9.1				2
860503	RA	30	19860521	3751.40	7645.40	.	.	.	7.0				2
860503	RA	30	19860521	3751.40	7645.40	.	.	.	7.6				2
860503	RA	35	19860521	3754.50	7648.40	.	.	.	4.9			0	2
860503	RA	35	19860521	3754.50	7648.40	.	.	.	4.9				2

Table 7.

June

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860601	YK	2	19860601	3713.60	7624.10	.	.	.	.	.	.	2	6
860601	YK	5	19860617	3713.60	7628.60	.	.	.	14.6	.	.	1	6
860601	YK	10	19860601	3718.70	7635.40	.	.	.	7.6	.	.	1	6
860601	YK	10	19860617	3718.70	7635.40	.	.	.	7.6	.	.	1	6
860601	YK	15	19860617	3723.30	7639.40	.	.	.	9.1	.	.	1	6
860601	YK	15	19860617	3723.30	7639.40	.	.	.	9.1	.	.	1	6
860601	YK	20	19860617	3725.80	7642.40	.	.	.	5.8	.	.	1	6
860601	YK	20	19860617	3725.80	7642.40	.	.	.	5.8	.	.	1	6
860601	YK	25	19860617	3728.80	7644.90	.	.	.	7.6	.	.	1	6
860601	YK	25	19860617	3728.80	7644.90	.	.	.	7.6	.	.	1	6
860601	YK	30	19860617	3732.90	7649.60	.	.	.	8.5	.	.	1	6
860601	YK	35	19860617	3733.00	7651.80	.	.	.	6.1	.	.	1	6
860602	RA	2	19860618	3735.80	7621.60	.	.	.	18.3	.	.	2	6
860602	RA	10	19860618	3737.80	7628.90	.	.	.	18.3	.	.	1	6
860602	RA	15	19860618	3740.20	7633.00	.	.	.	15.2	.	.	1	6
860602	RA	20	19860618	3744.20	7635.30	.	.	.	18.3	.	.	1	6
860602	RA	25	19860618	3747.40	7640.60	.	.	.	8.5	.	.	1	2
860602	RA	25	19860618	3747.40	7640.60	.	.	.	8.5	.	.	2	2
860602	RA	30	19860618	3751.40	7645.40	.	.	.	6.7	.	.	1	2
860602	RA	30	19860618	3751.40	7645.40	.	.	.	6.7	.	.	1	2
860602	RA	35	19860618	3754.50	7648.40	.	.	.	.	.	.	1	2
860602	RA	35	19860618	3754.50	7648.40	.	.	.	.	.	.	1	2
860603	JA	1	19860619	3659.60	7618.70	.	.	.	5.5	.	.	2	6
860603	JC	1	19860619	3715.10	7652.60	.	.	.	8.2	.	.	.	6
860603	JA	5	19860619	3656.80	7623.40	.	.	.	5.8	.	.	2	6
860603	JA	13	19860619	3701.60	7630.90	.	.	.	11.9	.	.	.	6
860603	JA	13	19860619	3701.60	7630.90	.	.	.	11.9	.	.	.	6
860603	JA	17	19860619	3705.40	7636.80	.	.	.	8.2	.	.	2	6
860603	JA	17	19860619	3705.40	7636.80	.	.	.	8.2	.	.	2	6
860603	JA	24	19860619	3709.50	7638.40	.	.	.	7.3	.	.	1	6
860603	JA	24	19860619	3709.50	7638.40	.	.	.	7.3	.	.	1	6
860603	JA	27	19860619	3712.60	7639.40	.	.	.	8.5	.	.	0	6
860603	JA	27	19860619	3712.60	7639.40	.	.	.	8.5	.	.	.	6
860603	JA	35	19860619	3711.40	7646.00	.	.	.	.	.	.	1	6
860603	JA	40	19860619	3713.40	7648.90	.	.	.	.	.	.	1	6

Table 8.

July

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860701	YK	2	19860721	3713.60	7624.10	.	.	.	11.0	1	.	2	2
860701	YK	5	19860721	3713.60	7628.60	.	.	.	12.8	1	.	2	1
860701	YK	10	19860721	3718.70	7635.40	.	.	.	8.8	1	1	1	2
860701	YK	10	19860721	3718.70	7635.40	.	.	.	9.4	2	2	1	2
860701	YK	15	19860721	3723.30	7639.40	.	.	.	.	.	.	0	.
860701	YK	15	19860721	3723.30	7639.40	.	.	.	9.4	2	2	0	.
860701	YK	20	19860721	3725.80	7642.40	.	.	.	7.6	1	1	.	2
860701	YK	20	19860721	3725.80	7642.40	.	.	.	7.3	2	2	1	2
860701	YK	25	19860721	3728.80	7644.90	.	.	.	9.1	1	1	1	2
860701	YK	25	19860721	3728.80	7644.90	.	.	.	9.1	2	2	1	2
860701	YK	30	19860721	3732.90	7649.60	.	.	.	7.6	1	1	0	2
860701	YK	35	19860721	3733.00	7651.80	.	.	.	6.4	1	1	.	2
860702	RA	2	19860722	3736.00	7621.50	.	.	.	18.3	1	.	1	.
860702	RA	10	19860722	3737.80	7628.90	.	.	.	18.3	1	.	1	.
860702	RA	15	19860722	3740.20	7633.00	.	.	.	13.7	2	.	1	2
860702	RA	15	19860722	3740.20	7633.00	.	.	.	18.3	2	.	1	.
860702	RA	20	19860722	3744.20	7635.30	.	.	.	.	1	.	1	.
860702	RA	20	19860722	3744.20	7635.30	.	.	.	14.6	.	.	1	.
860702	RA	25	19860722	3747.40	7640.60	.	.	.	9.1	1	.	1	2
860702	RA	25	19860722	3747.40	7640.60	.	.	.	.	.	.	1	.
860702	RA	30	19860722	3751.40	7645.40	.	.	.	6.1	1	.	1	2
860702	RA	30	19860722	3751.40	7645.40	.	.	.	.	.	.	1	.
860702	RA	35	19860722	3754.50	7648.40	.	.	.	5.5	1	.	1	2
860702	RA	35	19860722	3754.40	7648.40	.	.	.	.	.	.	1	.
860703	JC	1	19860724	3715.10	7652.00	.	.	.	9.8	1	.	1	6
860703	JA	1	19860724	3659.60	7619.70	.	.	.	.	.	.	2	2
860703	JA	5	19860724	3656.80	7623.40	.	.	.	6.1	1	.	2	2
860703	JA	13	19860724	3701.60	7630.90	.	.	.	10.0	.	1	.	.
860703	JA	13	19860724	3701.60	7630.90	.	.	.	10.1	.	.	.	.
860703	JA	17	19860724	3705.40	7636.80	.	.	.	6.4	.	.	2	.
860703	JA	17	19860724	3705.40	7636.80	.	.	.	.	1	.	2	.
860703	JA	24	19860724	3709.50	7638.40	.	.	.	7.6	.	1	2	6
860703	JA	24	19860724	3709.50	7638.40	.	.	.	7.6	1	.	2	6
860703	JA	27	19860724	3712.60	7639.40	.	.	.	8.5	1	.	2	6
860703	JA	27	19860724	3712.60	7639.40	.	.	.	.	.	1	2	6
860703	JA	35	19860724	3711.40	7646.00	.	.	.	8.2	.	.	2	6
860703	JA	40	19860724	3713.40	7648.90	.	.	.	3.0	.	1	1	6

Table 9.

August

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860801	YK	2	19860819	3713.60	7624.10	.	.	.	11.0	1			2
860801	YK	5	19860819	3713.60	7628.60	.	.	.	11.3	1			2
860801	YK	10	19860819	3718.70	7635.40	.	.	.	8.8	1			2
860801	YK	10	19860819	3718.70	7635.40	.	.	.	8.8	1			2
860801	YK	15	19860819	3723.30	7639.40	.	.	.	9.7	1			2
860801	YK	15	19860819	3723.30	7639.40	.	.	.	9.1	1			2
860801	YK	20	19860819	3725.80	7642.40	.	.	.	7.0				2
860801	YK	20	19860819	3725.80	7642.40	.	.	.	7.0				2
860801	YK	25	19860819	3728.80	7644.90	.	.	.	9.4				2
860801	YK	25	19860819	3728.80	7644.90	.	.	.	9.4				2
860801	YK	30	19860819	3732.90	7649.60	.	.	.	8.5	1			2
860801	YK	35	19860819	3733.00	7651.80	.	.	.		2			2
860802	RA	2	19860820	3735.80	7621.60	.	.	.	18.0				6
860802	RA	10	19860820	3737.80	7628.90	.	.	.	18.9				
860802	RA	15	19860820	3740.20	7633.00	.	.	.	15.2	1			
860802	RA	15	19860820	3740.20	7633.00	.	.	.					
860802	RA	20	19860820	3744.20	7635.30	.	.	.	15.8	1			
860802	RA	20	19860820	3744.20	7635.30	.	.	.		2			
860802	RA	25	19860820	3747.40	7640.60	.	.	.		1			
860802	RA	25	19860820	3747.40	7640.60	.	.	.		2			
860802	RA	30	19860820	3751.40	7645.40	.	.	.	6.1				
860802	RA	30	19860820	3751.40	7645.40	.	.	.					
860802	RA	35	19860820	3754.50	7648.40	.	.	.					
860802	RA	35	19860820	3754.40	7648.40	.	.	.					
860803	JA	1	19860822	3659.60	7619.70	.	.	.	8.5	2			
860803	JC	1	19860822	3715.10	7652.60	.	.	.		1	1	1	2
860803	JA	5	19860822	3656.80	7622.40	.	.	.		1	1	1	2
860803	JA	13	19860822	3701.60	7630.90	.	.	.	9.1	1	1	1	2
860803	JA	13	19860822	3701.60	7630.90	.	.	.	9.1	2	2		2
860803	JA	17	19860822	3705.40	7636.80	.	.	.	5.5	1	2		2
860803	JA	17	19860822	3705.40	7636.80	.	.	.	5.5	2	2		2
860803	JA	24	19860822	3709.50	7638.40	.	.	.	9.1	1	2		2
860803	JA	24	19860822	3709.50	7638.40	.	.	.	9.1	2	2		2
860803	JA	27	19860822	3712.60	7639.40	.	.	.	6.4			1	2
860803	JA	27	19860822	3712.60	7639.40	.	.	.	6.4	1	1		2
860803	JA	35	19860822	3711.40	7646.00	.	.	.	8.5	1	1	0	2
860803	JA	40	19860822	3712.40	7648.90	.	.	.		1	1	0	2

Table 10.

September

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
860901	YK	2	19860926	3713.60	7624.10	.	.	.	10.1	1			6
860901	YK	5	19860926	3713.60	7628.60	.	.	.	13.4	1			6
860901	YK	10	19860926	3718.70	7635.40	.	.	.	8.5	1			6
860901	YK	10	19860926	3718.70	7635.40	.	.	.	8.5	1			6
860901	YK	15	19860926	3723.30	7639.40	.	.	.	8.8				6
860901	YK	15	19860926	3723.30	7639.40	.	.	.	8.8				6
860901	YK	20	19860926	3725.80	7642.40	.	.	.	7.6				6
860901	YK	20	19860926	3725.80	7642.40	.	.	.	7.6				6
860901	YK	25	19860926	3728.80	7644.90	.	.	.	8.5				6
860901	YK	25	19860926	3728.80	7644.90	.	.	.	8.5				6
860901	YK	30	19860926	3732.90	7649.60	.	.	.	9.1	1			6
860901	YK	35	19860926	3733.00	7651.80	.	.	.	6.4				6
860902	RA	2	19860923	3736.00	7621.50	.	.	.	16.8				8
860902	RA	10	19860923	3737.80	7628.90	.	.	.	17.7				6
860902	RA	15	19860923	3740.20	7633.00	.	.	.	15.5				6
860902	RA	15	19860923	3740.20	7633.00	.	.	.	15.5				6
860902	RA	20	19860923	3744.20	7635.30	.	.	.	13.7				6
860902	RA	20	19860923	3744.20	7635.30	.	.	.	13.7				6
860902	RA	25	19860923	3747.40	7640.60	.	.	.	8.5				6
860902	RA	25	19860923	3747.40	7640.60	.	.	.	8.5				6
860902	RA	30	19860923	3751.40	7645.40	.	.	.	5.2				6
860902	RA	30	19860923	3751.40	7645.40	.	.	.					6
860902	RA	35	19860923	3754.50	7648.40	.	.	.	5.2				6
860902	RA	35	19860923	3754.50	7648.40	.	.	.	5.2				6
860903	JA	1	19860922	3659.60	7619.70	.	.	.	8.8	1			
860903	JC	1	19860922	3715.10	7652.60	.	.	.	6.4				2
860903	JA	5	19860922	3656.80	7622.40	.	.	.	5.5	1			2
860903	JA	13	19860922	3701.60	7630.90	.	.	.	10.7	1			2
860903	JA	13	19860922	3701.60	7630.90	.	.	.	10.7	1			2
860903	JA	17	19860922	3705.40	7636.80	.	.	.	9.1				2
860903	JA	17	19860922	3705.40	7636.80	.	.	.	9.1				2
860903	JA	24	19860922	3709.50	7638.40	.	.	.	7.3				2
860903	JA	24	19860922	3709.50	7638.40	.	.	.	7.3				2
860903	JA	27	19860922	3712.60	7639.40	.	.	.	9.1				2
860903	JA	27	19860922	3712.60	7639.40	.	.	.	9.1				2
860903	JA	35	19860922	3711.40	7646.00	.	.	.	8.8	1			2
860903	JA	40	19860922	3712.40	7648.90	.	.	.	4.0				2

Table 11.

October

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
861001	JA	1	19861020	3659.60	7619.70	.	.	.	4.6	1			2
861001	JA	1	19861020	3659.60	7619.70	.	.	.	.				2
861001	JC	1	19861020	3715.10	7652.60	.	.	.	.				2
861001	JA	5	19861020	3656.80	7623.40	.	.	.	.				2
861001	JA	13	19861020	3701.60	7630.90	.	.	.	6.1	1			2
861001	JA	17	19861020	3705.40	7636.80	.	.	.	13.1				2
861001	JA	17	19861020	3705.40	7636.80	.	.	.	7.0	1			2
861001	JA	24	19861020	3709.50	7638.40	.	.	.	7.0	1			2
861001	JA	24	19861020	3709.50	7638.40	.	.	.	11.0	1			2
861001	JA	27	19861020	3712.60	7639.40	.	.	.	11.0	1		1	2
861001	JA	27	19861020	3712.60	7639.40	.	.	.	9.1	1			2
861001	JA	35	19861020	3711.40	7646.00	.	.	.	9.1	1			2
861001	JA	40	19861020	3712.40	7648.90	.	.	.	9.1	1			2
861002	RA	2	19861022	3736.00	7621.50	.	.	.	3.7	1			2
861002	RA	10	19861022	3737.80	7628.90	.	.	.	18.3	1			2
861002	RA	15	19861022	3740.20	7633.00	.	.	.	18.3	2		1	6
861002	RA	15	19861022	3740.20	7633.00	.	.	.	15.2	1		1	6
861002	RA	20	19861022	3744.20	7635.30	.	.	.	15.2	1		1	6
861002	RA	20	19861022	3744.20	7635.30	.	.	.	16.8	1		1	6
861002	RA	25	19861022	3747.40	7640.60	.	.	.	16.8	1		1	6
861002	RA	25	19861022	3747.40	7640.60	.	.	.	8.8	1			6
861002	RA	30	19861022	3751.40	7645.40	.	.	.	.	1			6
861002	RA	30	19861022	3751.40	7645.40	.	.	.	.	1			6
861002	RA	35	19861022	3754.50	7648.40	.	.	.	6.1	1		1	6
861002	RA	35	19861022	3754.50	7648.40	.	.	.	5.8	1			6
861003	YK	2	19861024	3713.60	7624.10	.	.	.	5.8	1		1	6
861003	YK	5	19861024	3713.60	7628.60	.	.	.	10.7	1		1	6
861003	YK	10	19861024	3718.70	7635.40	.	.	.	14.9	1			6
861003	YK	10	19861024	3718.70	7635.40	.	.	.	8.5	1			6
861003	YK	15	19861024	3723.30	7639.40	.	.	.	8.5	1			6
861003	YK	15	19861024	3723.30	7639.40	.	.	.	7.3	1			6
861003	YK	20	19861024	3725.80	7642.40	.	.	.	7.3	2			6
861003	YK	20	19861024	3725.80	7642.40	.	.	.	7.0	1			6
861003	YK	25	19861024	3728.80	7644.90	.	.	.	7.0	1			6
861003	YK	25	19861024	3728.80	7644.90	.	.	.	.	2			6
861003	YK	30	19861024	3732.90	7649.60	.	.	.	8.8	1			6
861003	YK	35	19861024	3733.00	7651.80	.	.	.	5.5	1			6
									6.4	1			6

Table 12.

November

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
861101	JA	1	19861117	3659.60	7619.70	.	.	.	7.6	1		0	2
861101	JC	1	19861117	3715.10	7652.60	.	.	.	11.0	1		0	2
861101	JA	5	19861117	3656.80	7623.40	.	.	.	.			0	2
861101	JA	13	19861117	3701.60	7630.90	.	.	.	.	1			2
861101	JA	13	19861117	3701.60	7630.90	.	.	.	.	1		0	2
861101	JA	17	19861117	3705.40	7636.80	.	.	.	.	1			2
861101	JA	17	19861117	3705.40	7636.80	.	.	.	7.3	1			2
861101	JA	24	19861117	3709.50	7638.40	.	.	.	7.3	2			2
861101	JA	24	19861117	3709.50	7638.40	.	.	.	9.4	1			2
861101	JA	27	19861117	3712.60	7639.40	.	.	.	9.4	2		0	2
861101	JA	27	19861117	3712.60	7639.40	.	.	.	9.8	1		0	2
861101	JA	35	19861117	3711.40	7646.00	.	.	.	9.8	2		0	2
861101	JA	40	19861117	3712.40	7648.90	.	.	.	8.2	1		0	2
861102	RA	2	19861119	3736.00	7621.50	.	.	.	3.4	1		0	2
861102	RA	10	19861119	3737.80	7628.90	.	.	.	19.5				
861102	RA	15	19861119	3740.20	7633.00	.	.	.	19.2				
861102	RA	20	19861119	3744.20	7635.30	.	.	.	14.6				
861102	RA	20	19861119	3744.20	7635.30	.	.	.	12.8	2			
861102	RA	25	19861119	3747.40	7640.60	.	.	.	12.8		2		
861102	RA	25	19861119	3747.40	7640.60	.	.	.	8.5	1			6
861102	RA	30	19861119	3751.40	7645.40	.	.	.	.	2			6
861102	RA	30	19861119	3751.40	7645.40	.	.	.	7.0	1			6
861102	RA	35	19861119	3754.50	7648.40	.	.	.	7.0	2			6
861102	RA	35	19861119	3754.50	7648.40	.	.	.	5.8	1			6
861103	YK	2	19861120	3713.60	7624.10	.	.	.	5.8	2			6
861103	YK	5	19861120	3713.60	7628.60	.	.	.	11.0			2	6
861103	YK	10	19861120	3718.70	7635.40	.	.	.	12.8	1			6
861103	YK	10	19861120	3718.70	7635.40	.	.	.	8.2		2	2	6
861103	YK	15	19861120	3723.30	7639.40	.	.	.	8.2	1		2	6
861103	YK	15	19861120	3723.30	7639.40	.	.	.	10.7	1		2	6
861103	YK	20	19861120	3725.80	7642.40	.	.	.	10.7	1		2	6
861103	YK	20	19861120	3725.80	7642.40	.	.	.	7.9	1		2	6
861103	YK	25	19861120	3728.80	7644.90	.	.	.	7.9	1		2	6
861103	YK	25	19861120	3728.80	7644.90	.	.	.	9.1	1		2	6
861103	YK	30	19861120	3732.90	7649.60	.	.	.	9.1	1		2	6
861103	YK	35	19861120	3733.00	7651.80	.	.	.	8.2	1		2	6
									6.4	1		2	6

Table 13.

December

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
861201	JA	1	19861215	3659.60	7619.70	.	.	.	7.9	1			2
861201	JA	5	19861215	3656.80	7623.40	.	.	.	5.8				
861201	JA	13	19861215	3701.60	7630.90	.	.	.	.				2
861201	JA	17	19861215	3705.40	7636.80	.	.	.	12.2				
861201	JA	24	19861215	3709.50	7638.40	.	.	.	7.6	1			
861201	JA	27	19861215	3712.60	7639.40	.	.	.	8.2				
861201	JA	35	19861215	3711.40	7646.00	.	.	.	8.8				2
861201	JA	40	19861215	3712.40	7648.90	.	.	.	3.4				2
861202	RA	2	19861217	3736.00	7621.50	.	.	.	.	1		2	2
861202	RA	10	19861217	3737.80	7628.90	.	.	.	18.9	1		2	2
861202	RA	15	19861217	3740.20	7633.00	.	.	.	15.5	1		2	2
861202	RA	20	19861217	3744.20	7635.30	.	.	.	16.8	1			2
861202	RA	25	19861217	3747.40	7640.60	.	.	.	8.8	1		2	2
861202	RA	30	19861217	3751.40	7645.40	.	.	.	6.7	1		2	2
861202	RA	35	19861217	3754.50	7648.40	.	.	.	6.1	1		2	2
861203	YK	2	19861218	3713.60	7624.10	.	.	.	11.0				
861203	YK	5	19861218	3713.60	7628.60	.	.	.	12.5	1			2
861203	YK	10	19861218	3718.70	7635.40	.	.	.	7.6	1			2
861203	YK	15	19861218	3723.30	7639.40	.	.	.	9.1				2
861203	YK	20	19861218	3725.80	7642.40	.	.	.	7.6				2
861203	YK	25	19861218	3728.80	7644.90	.	.	.	9.1				2
861203	YK	30	19861218	3732.90	7649.60	.	.	.	7.6				2
861203	YK	35	19861218	3733.00	7651.80	.	.	.	6.7				2

Tables 14-25. Atmospheric and hydrographic data for the river trawl survey by month.

- Explanations:
- A. To conserve space, some variables are presented as coded values. Code keys are presented in Table 1 (p.118).
 - B. Due to measurement error (calibration differences and instrument drift) associated with the hydrographic equipment used to measure temperature, salinity, and dissolved oxygen, some calculated saturation values presented here are greater than 100%.

Table 14.

January

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860101	YK	2	0.5	3	360	0	1.4	4.40	17.9	10.90	94.8	4.70	20.3	13.20	117.5
860101	YK	5	0.5	3	360		1.2	4.10	14.4	10.70	90.2	4.70	4.7	13.60	109.0
860101	YK	10	0.5	3	360	0	1.2	3.80	12.1	11.30	93.1	4.70	18.2	15.40	135.2
860101	YK	15	0.0	5	360		0.8	3.80	10.6	10.40	84.8	4.20	17.6	15.40	132.9
860101	YK	20	0.1	8	340		0.8	3.80	10.2	10.60	86.2	4.20	16.4	15.10	129.3
860101	YK	25	0.8	10	320	0	0.8	3.60	8.6	13.20	105.6	4.20	15.7	15.10	128.7
860102	JA	1	4.0	13	180	1		4.40	15.8			3.00	21.2		
860102	JC	1		5	180	2	0.2	4.30	0.0			4.40	0.0		
860102	JA	5	4.0	13	180	1		3.10	19.2			4.20	19.2		
860102	JA	13	3.9	20	180	1		4.00	10.1			3.80	15.8		
860102	JA	17	4.0	20	180	1		4.10	5.3			4.20	12.2		
860102	JA	24		15	180			4.40	0.4			4.20	2.5		
860102	JA	27		15	180	1		4.30	0.0			4.60	0.2		
860102	JA	35	4.4	15	180	1		4.30	0.0			4.60	0.0		
860102	JA	40	5.8	15	180	2	0.2	4.10	0.0			4.20	0.0		
860103	RA	2	-3.5	4	220	2	2.0		7.9	14.20		2.90	10.3	15.40	122.4
860103	RA	10	-3.5	4	220	2	1.6	1.90	9.8	13.40	103.4	2.90	10.6	15.10	120.2
860103	RA	15	-3.0	4	220	2	1.3	1.50	9.9	14.20	108.4	3.00	8.2	15.10	118.6
860103	RA	20	-2.8	4	220	2	0.9	1.00	5.9	14.20	104.1	2.20	7.9	15.00	115.1
860103	RA	25	-2.9	3	220	2	0.8	0.90	5.5	13.80	100.6	2.20	6.3	15.00	113.9
860103	RA	30	3.0	3	220	2	0.6	0.90	0.0	15.00	105.2	2.00	3.0	15.00	110.7
860103	RA	35	-2.8	5	220	7	0.7	0.00	0.4	15.00	102.9	0.00	1.0	15.00	103.3

Table 15.

February

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860201	JA	1	6.8	18	320		2.2	5.10	16.2	13.80	120.7	4.90	16.2	15.00	130.6
860201	JC	1	9.1	4	360			6.20	0.0	11.80	95.3	6.30	0.0	13.40	108.5
860201	JA	5	7.0					5.90	12.3	13.00	113.0	4.90	17.9	15.00	132.0
860201	JA	13	7.5	6	360	6	2.0	6.20	7.5	14.20	120.5	4.20	27.3	15.00	138.2
860201	JA	17	8.0				1.2	6.10	3.8	15.00	123.9	4.40	14.1	15.00	127.1
860201	JA	24	8.2					6.00	0.3	14.50	116.7	4.90	7.2	15.00	122.9
860201	JA	27	8.4	10	360		0.8	6.20	0.0	13.20	106.6	4.80	8.1	15.10	124.2
860201	JA	35	8.7	10	360		0.2	5.70	0.0	12.90	102.8	5.50	0.0	15.00	119.0
860201	JA	40	8.5	5	360		0.3	5.70	0.0	11.90	94.9	5.50	0.0	11.80	93.6
860202	YK	2	7.5				1.6	5.90	10.5	14.00	120.3	5.00	22.0	13.30	120.6
860202	YK	5	7.0				1.4	6.00	10.0	10.40	89.3	5.00	22.0	9.80	88.9
860202	YK	10						6.50	9.0	11.60	100.1	3.90	18.0	12.00	103.1
860202	YK	15	8.0	5	140			6.00	5.5	12.60	105.0	4.00	15.0		
860202	YK	20	8.0	5	140		0.7	6.00	4.0	14.40	118.8	4.00	15.0		
860202	YK	25		5	220		0.6	7.00	4.0	12.60	106.6	4.00	12.0		
860202	YK	30	9.0	5	140			7.00	0.0	12.60	103.8	4.00	9.0		
860202	YK	35	9.5	5	140		0.7	5.00	0.0	13.50	105.7	4.00	2.0		
860203	RA	2	1.0	12	250	0		4.00	7.0	13.60	108.8	4.00	9.0		
860203	RA	10	3.0	20	320			4.00	7.0	13.40	107.2	4.00	11.0		
860203	RA	15	-1.0	25	320	0		4.00	6.0	14.00	111.2	4.00	10.0		
860203	RA	20	0.0	25	320			3.00	5.0	14.00	107.6	3.00	9.0		
860203	RA	25		12	270	0	6.0	3.00	4.0	14.00	106.9	3.00	5.0		
860203	RA	30	1.0	25	320	0		4.00	0.0	11.90	90.8	4.00	2.0		
860203	RA	35	0.0					4.00	0.0	11.60	88.5	4.00	0.0		

Table 16.

March

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860301	YK	2	10.0	25	320	0		9.00	12.0	12.40	115.9		14.0	13.00	
860301	YK	5		2	320		1.2	9.00	10.0	14.80	136.6	8.00	16.0		
860301	YK	10	10.0	3	320		8.0	9.00	10.0	13.40	123.6	8.50	14.0		
860301	YK	15					5.5	9.00	8.0			9.00	12.0		
860301	YK	20	12.0	8	320			9.50	8.0			9.00	11.0		
860301	YK	25	12.0	10	320		4.0	10.00	9.5			9.00	10.0		
860301	YK	30	12.0	10	320	0	3.5	10.00	8.0			10.00	8.0		
860301	YK	35		10	320	0	4.0	10.50	3.0			10.50	2.0		
860302	JA	1	11.8	8	330	0	1.1	10.10				9.80			
860302	JC	1	19.6	2	180	0	0.4	12.80				12.00			
860302	JA	5	13.1				5.5	9.80				9.80			
860302	JA	13	13.1			0	0.8	13.90				10.90			
860302	JA	17	14.1			0	0.5	15.00				12.00			
860302	JA	24	16.1			0	0.5	13.00				12.70			
860302	JA	27	16.3			0	7.0	13.10				11.90			
860302	JA	35	17.8	5	180	0	0.7	12.10				11.20			
860302	JA	40	19.4	5	220	0	0.5	11.90							
860303	RA	2		4	40		2.0	8.80				7.20			
860303	RA	10	15.5	4	40			9.50				7.80			
860303	RA	15	12.0	4	40		1.4	10.00				8.20			
860303	RA	20	12.0			0	1.1	9.50				8.20			
860303	RA	25				0	1.1	9.50				8.20			
860303	RA	30	9.0			0	0.5	9.50				9.00			
860303	RA	35	9.2			0	0.5	9.50				9.50			

Table 17.

April

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860401	YK	2	10.5	10	280		1.9	12.00	.	.	.	12.20	.	.	.
860401	YK	5	10.5	10	280		1.4	12.50	.	.	.	12.50	.	.	.
860401	YK	10	.	10	280	0	.	12.80	.	.	.	12.10	.	.	.
860401	YK	15	.	.	.	.	0.6	13.40	.	.	.	12.50	.	.	.
860401	YK	20	.	.	.	.	0.6	13.20	.	.	.	13.00	.	.	.
860401	YK	25	.	.	.	.	0.5	13.90	.	.	.	13.20	.	.	.
860401	YK	30	.	.	.	.	0.5	15.10	.	.	.	15.00	.	.	.
860401	YK	35	.	.	.	.	0.4	14.70	.	.	.	14.70	.	.	.
860402	JC	1	.	10	180	.	.	14.50	.	.	.	14.40	.	.	.
860402	JA	1	.	5	220	.	1.1	13.20	.	.	.	13.00	.	.	.
860402	JA	5	.	15	180	.	0.9	13.80	.	.	.	13.50	.	.	.
860402	JA	13	.	10	180	.	0.7	13.90	.	.	.	13.80	.	.	.
860402	JA	17	.	20	140	.	0.7	14.20	.	.	.	14.50	.	.	.
860402	JA	24	.	10	180	.	0.6	14.70	.	.	.	14.80	.	.	.
860402	JA	27	.	15	180	.	0.8	15.00	.	.	.	14.50	.	.	.
860402	JA	35	.	20	180	0	.	14.50	.	.	.	14.50	.	.	.
860402	JA	40	.	15	180	.	0.4	14.50	.	.	.	14.50	.	.	.
860403	RA	2	12.0	12	320	.	.	12.50	.	.	.	12.00	.	.	.
860403	RA	10	.	12	320	.	1.7	13.00	.	.	.	12.00	.	.	.
860403	RA	15	11.0	15	320	.	1.7	13.00	.	.	.	.	.	.	.
860403	RA	20	10.0	15	320	.	.	12.00	.	.	.	12.00	.	.	.
860403	RA	25	.	15	320	.	0.6	13.00	.	.	.	12.00	.	.	.
860403	RA	30	.	15	320	.	0.5	13.00	.	.	.	13.00	.	.	.
860403	RA	35	11.0	15	320	.	.	13.00	.	.	.	13.00	.	.	.

Table 18.

May

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860501	YK	2	20.5	8	180	0	.	19.20	20.3	.	.	15.20	27.5	.	.
860501	YK	5	20.5	6	180	0	.	19.00	20.2	.	.	15.00	27.3	.	.
860501	YK	10	21.2	6	180	0	.	19.70	19.0	.	.	16.40	22.8	.	.
860501	YK	10	.	6	180	0	.	.	.	.	.	.	.	.	.
860501	YK	15	.	5	180	0	.	21.00	15.5	.	.	17.20	18.4	.	.
860501	YK	15	.	.	.	.	.	.	.	.	.	.	.	.	.
860501	YK	20	22.5	5	180	0	.	.	.	.	.	.	.	.	.
860501	YK	20	.	.	.	.	.	.	.	.	.	.	.	.	.
860501	YK	25	23.8	6	190	.	.	21.30	13.8	.	.	20.20	15.8	.	.
860501	YK	25	23.5	6	190	0	.	.	.	.	.	.	.	.	.
860501	YK	30	22.0	6	180	0	.	22.10	9.8	.	.	21.20	11.8	.	.
860501	YK	35	.	5	220	.	.	20.40	5.8	.	.	21.50	6.5	.	.
860502	JC	1	20.2	5	220	0	.	22.80	1.0	.	.	22.50	1.5	.	.
860502	JA	1	.	.	.	.	.	20.00	21.5	.	.	19.00	24.5	.	.
860502	JA	5	.	10	180	.	.	19.50	20.0	.	.	20.50	20.0	.	.
860502	JA	13	20.0	5	180	0	.	20.50	16.0	.	.	19.50	19.5	.	.
860502	JA	13	20.0	5	180	0	.	20.50	16.0	.	.	19.50	19.5	.	.
860502	JA	17	.	8	180	0	.	21.00	10.0	.	.	21.00	13.0	.	.
860502	JA	17	.	8	180	0	.	21.00	10.0	.	.	21.00	13.0	.	.
860502	JA	24	.	5	180	0	.	21.50	7.5	.	.	21.50	9.0	.	.
860502	JA	24	21.0	5	180	0	.	21.50	7.5	.	.	21.50	9.0	.	.
860502	JA	27	21.5	8	180	0	.	21.50	5.5	.	.	22.00	6.0	.	.
860502	JA	27	21.5	8	180	0	.	21.50	5.5	.	.	22.00	6.0	.	.
860502	JA	35	20.5	3	180	0	.	21.50	3.0	.	.	22.00	4.0	.	.
860502	JA	40	.	.	.	.	.	21.30	2.0	.	.	21.50	2.0	.	.
860503	RA	2	23.0	.	.	0	.	20.50	18.0	.	.	19.00	21.0	.	.
860503	RA	10	24.5	4	180	0	.	20.50	16.0	.	.	19.50	19.0	.	.
860503	RA	15	24.0	3	180	0	.	21.00	15.0	.	.	18.90	19.0	.	.
860503	RA	15	.	3	180	0	.	21.00	15.0	.	.	18.90	19.0	.	.
860503	RA	20	24.3	3	180	0	.	21.20	14.0	.	.	17.90	18.0	.	.
860503	RA	20	24.3	3	180	0	.	21.20	14.0	.	.	17.90	18.0	.	.
860503	RA	25	.	3	.	0	.	21.20	12.0	.	.	19.00	15.0	.	.
860503	RA	25	23.0	3	.	0	.	21.20	12.0	.	.	19.00	15.0	.	.
860503	RA	30	24.0	3	.	0	.	22.50	9.0	.	.	22.00	11.0	.	.
860503	RA	30	24.0	3	.	0	.	22.50	9.0	.	.	22.00	11.0	.	.
860503	RA	35	19.0	3	.	0	.	22.00	5.0	.	.	22.00	6.0	.	.
860503	RA	35	19.0	3	.	0	.	22.00	5.3	.	.	22.00	5.0	.	.

Table 19.

June															
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860601	YK	2	.	5	270	0	.	25.00	22.0	.	.	25.0	.	.	
860601	YK	5	.	5	270	0	.	25.00	22.0	.	.	23.00	26.0	.	
860601	YK	10	24.0	3	320	0	.	25.50	20.0	.	.	24.50	22.0	.	
860601	YK	10	24.0	3	320	0	.	25.50	20.0	.	.	24.50	22.0	.	
860601	YK	15	.	8	320	0	.	26.00	16.0	.	.	25.50	18.0	.	
860601	YK	15	.	8	320	0	.	26.00	16.0	.	.	25.50	18.0	.	
860601	YK	20	24.0	5	360	0	.	27.00	14.0	.	.	26.00	17.0	.	
860601	YK	20	24.0	5	360	0	.	27.00	14.0	.	.	26.00	17.0	.	
860601	YK	25	23.0	8	320	0	.	26.50	14.0	.	.	26.00	15.0	.	
860601	YK	25	23.0	8	320	0	.	26.50	14.0	.	.	26.00	15.0	.	
860601	YK	30	25.0	3	360	0	.	27.50	9.0	.	.	26.00	10.0	.	
860601	YK	35	23.0	3	270	0	.	27.00	4.0	.	.	26.50	4.0	.	
860602	RA	2	19.0	5	40	0	.	25.00	16.0	.	.	23.00	21.0	.	
860602	RA	10	.	.	.	.	.	25.00	16.0	.	.	22.00	21.0	.
860602	RA	15	20.5	0	.	0	.	25.00	15.0	.	.	22.50	21.0	.	
860602	RA	20	19.0	4	360	0	.	24.50	15.0	.	.	22.50	18.0	.	
860602	RA	25	20.0	5	360	0	.	24.00	12.0	.	.	22.00	16.0	.	
860602	RA	25	20.0	5	360	0	.	24.00	12.0	.	.	22.00	16.0	.	
860602	RA	30	17.0	5	360	0	.	25.00	10.0	.	.	22.00	10.0	.	
860602	RA	30	17.0	5	360	0	.	25.00	10.0	.	.	20.00	10.0	.	
860602	RA	35	18.0	4	360	0	.	25.40	6.0	.	.	24.00	7.0	.	
860602	RA	35	8.0	4	360	0	.	25.40	6.0	.	.	24.00	7.0	.	
860603	JA	1	21.0	3	270	0	.	22.50	24.0	.	.	.	.	.
860603	JC	1	.	0	.	0	.	27.00	0.5	.	.	24.00	2.0	.	
860603	JA	5	.	3	270	0	.	23.00	22.0	.	.	22.00	24.0	.	
860603	JA	13	22.0	3	220	0	.	23.00	17.0	.	.	24.00	20.0	.	
860603	JA	13	22.0	3	220	0	.	23.00	17.0	.	.	24.00	20.0	.	
860603	JA	17	.	5	180	0	.	25.50	12.0	.	.	24.50	14.0	.	
860603	JA	17	.	5	180	0	.	25.50	12.0	.	.	24.50	14.0	.	
860603	JA	24	22.0	.	.	0	.	26.00	8.0	.	.	25.00	10.0	.	
860603	JA	24	22.0	.	.	0	.	26.00	8.0	.	.	25.00	10.0	.	
860603	JA	27	.	.	.	0	.	27.00	7.0	.	.	25.00	8.0	.	
860603	JA	27	.	.	.	0	.	27.00	7.0	.	.	25.00	8.0	.	
860603	JA	35	.	.	.	0	.	27.00	3.0	.	.	25.00	5.0	.	
860603	JA	40	.	.	.	0	.	28.00	2.0	.	.	25.00	3.0	.	

Table 20.

July															
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860701	YK	2	22.8	5	320	0	.	27.80	21.8	.	.	26.90	22.1	.	.
860701	YK	5	.	5	320	0	.	27.40	21.8	.	.	26.20	24.4	.	.
860701	YK	10	23.5	5	320	0	.	27.80	21.8	.	.	27.30	22.2	.	.
860701	YK	10	.	5	320	0	.	27.80	21.8	.	.	27.30	22.2	.	.
860701	YK	15	.	5	320	0	.	27.40	20.5	.	.	26.90	21.0	.	.
860701	YK	15	.	5	320	0	.	27.40	20.5	.	.	26.90	21.0	.	.
860701	YK	20	.	.	.	.	.	28.70	20.2	.	.	28.60	21.2	.	.
860701	YK	20	25.6	5	320	0	.	28.70	20.0	.	.	28.60	21.2	.	.
860701	YK	25	.	5	320	0	.	28.80	21.0	.	.	29.20	21.0	.	.
860701	YK	25	.	5	320	0	.	28.80	21.0	.	.	29.20	21.0	.	.
860701	YK	30	.	5	320	0	.	29.80	16.5	.	.	29.80	17.6	.	.
860701	YK	35	.	.	.	.	.	30.00	12.3	.	.	30.00	13.6	.	.
860702	RA	2	28.9	10	90	0	.	28.20	18.3	.	.	28.00	18.2	.	.
860702	RA	10	.	5	90	0	.	20.60	17.8	.	.	27.90	18.4	.	.
860702	RA	15	.	10	90	0	.	28.40	17.6	.	.	28.00	18.1	.	.
860702	RA	15	.	10	90	0	.	28.40	17.6	.	.	.	.	.	.
860702	RA	20	27.7	5	90	0	.	28.60	17.8	.	.	28.50	18.2	.	.
860702	RA	20	27.7	5	90	0	.	28.60	17.7	.	.	28.50	18.2	.	.
860702	RA	25	27.6	.	.	0	.	29.00	15.0	.	.	28.70	16.2	.	.
860702	RA	25	27.6	.	.	0	.	29.00	15.0	.	.	28.70	16.2	.	.
860702	RA	30	.	10	40	0	.	29.20	13.0	.	.	28.60	14.3	.	.
860702	RA	30	.	10	40	0	.	29.20	13.0	.	.	28.60	14.3	.	.
860702	RA	35	25.7	.	.	0	.	29.00	0.9	.	.	28.50	1.1	.	.
860702	RA	35	25.7	.	.	0	.	29.00	0.9	.	.	28.50	1.1	.	.
860703	JC	1	28.7	.	.	0	.	28.00	0.5	.	.	28.50	0.5	.	.
860703	JA	1	.	10	140	0	.	28.20	24.0	.	.	28.20	24.5	.	.
860703	JA	5	.	5	140	0	.	28.00	25.0	.	.	28.00	25.0	.	.
860703	JA	13	.	10	140	0	.	29.20	21.5	.	.	28.20	24.2	.	.
860703	JA	13	.	10	140	0	.	29.20	21.5	.	.	28.20	24.2	.	.
860703	JA	17	.	.	.	0	.	29.00	15.0	.	.	28.50	16.0	.	.
860703	JA	17	.	.	.	0	.	29.00	15.5	.	.	28.50	16.0	.	.
860703	JA	24	.	10	90	0	.	29.00	12.0	.	.	28.50	13.9	.	.
860703	JA	24	.	10	90	0	.	29.00	12.0	.	.	28.50	13.9	.	.
860703	JA	27	.	10	90	0	.	29.00	10.5	.	.	28.80	11.0	.	.
860703	JA	27	.	.	.	0	.	29.00	10.5	.	.	28.80	11.0	.	.
860703	JA	35	.	10	220	0	.	28.90	8.0	.	.	28.00	9.5	.	.
860703	JA	40	.	10	220	0	.	28.80	7.0	.	.	28.90	7.5	.	.

Table 21.

August															
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860801	YK	2	23.2	5	220	0	.	27.00	24.0	.	.	27.00	23.0	.	.
860801	YK	5	.	5	220	0	.	26.50	23.0	.	.	26.50	23.0	.	.
860801	YK	10	22.5	.	.	0	.	26.30	21.0	.	.	26.30	22.0	.	.
860801	YK	15	.	.	.	0	.	25.30	20.0	.	.	25.30	22.0	.	.
860801	YK	15	.	.	.	0	.	26.70	19.0	.	.	26.70	20.0	.	.
860801	YK	20	.	.	.	0	.	26.70	19.0	.	.	26.70	20.0	.	.
860801	YK	20	.	.	.	0	.	26.90	18.0	.	.	26.60	20.0	.	.
860801	YK	25	24.0	.	.	0	.	26.90	18.0	.	.	26.60	20.0	.	.
860801	YK	25	24.0	.	.	0	.	26.80	17.0	.	.	26.50	19.0	.	.
860801	YK	30	24.0	.	.	0	.	26.80	17.0	.	.	26.50	19.0	.	.
860801	YK	35	24.0	.	.	0	.	.	.	.	.	.	.	.	.
860802	RA	2	22.1	15	.	0	.	27.00	9.0	.	.	26.50	9.0	.	.
860802	RA	10	.	20	140	0	.	26.50	20.0	.	.	0.00	19.5	.	.
860802	RA	15	.	.	.	0	.	26.50	19.0	.	.	26.00	19.0	.	.
860802	RA	15	.	.	.	0	.	26.50	19.0	.	.	26.00	19.0	.	.
860802	RA	20	.	.	.	0	.	.	.	.	.	26.00	18.5	.	.
860802	RA	20	.	.	.	0	.	26.20	19.0	.	.	25.00	18.5	.	.
860802	RA	25	.	.	.	0	.	26.00	19.0	.	.	25.50	18.5	.	.
860802	RA	25	.	.	.	0	.	25.80	16.5	.	.	26.00	17.0	.	.
860802	RA	30	.	.	.	0	.	25.00	16.5	.	.	25.50	17.0	.	.
860802	RA	30	.	.	.	0	.	.	.	.	.	26.00	15.0	.	.
860802	RA	35	.	.	.	0	.	.	.	.	.	26.00	15.0	.	.
860802	RA	35	.	.	.	0	.	25.70	12.5	.	.	25.50	12.5	.	.
860803	JA	1	20.8	15	360	0	.	25.70	12.5	.	.	25.50	12.5	.	.
860803	JC	1	21.6	5	360	0	.	25.00	25.0	.	.	25.00	24.5	.	.
860803	JA	5	.	15	360	0	.	26.30	4.5	.	.	26.20	5.0	.	.
860803	JA	13	.	5	360	0	.	25.80	23.5	.	.	25.40	24.0	.	.
860803	JA	13	.	10	360	0	.	25.40	20.0	.	.	25.00	25.0	.	.
860803	JA	17	.	15	360	0	.	25.40	20.0	.	.	25.00	25.0	.	.
860803	JA	17	.	5	360	0	.	26.00	13.5	.	.	25.00	14.0	.	.
860803	JA	24	.	10	360	0	.	26.00	13.5	.	.	25.00	14.0	.	.
860803	JA	24	.	.	.	0	.	26.20	10.5	.	.	25.20	12.0	.	.
860803	JA	27	.	.	.	0	.	26.20	10.5	.	.	25.20	12.0	.	.
860803	JA	27	.	10	360	0	.	26.50	9.0	.	.	25.70	10.0	.	.
860803	JA	35	.	5	360	0	.	26.50	9.0	.	.	25.70	10.0	.	.
860803	JA	40	21.0	10	360	0	.	26.80	7.5	.	.	26.00	8.5	.	.
860803	JA	40	.	.	.	0	.	26.50	5.0	.	.	26.20	5.5	.	.

Table 22.

September															
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
860901	YK	2	.	.	.	0	.	25.00	19.0	.	.	24.50	22.0	.	.
860901	YK	5	.	.	.	0	.	24.00	24.0	.	.	22.80	28.0	.	.
860901	YK	10	.	.	.	0	.	24.20	22.0	.	.	23.50	26.0	.	.
860901	YK	15	.	.	.	0	.	24.20	22.0	.	.	23.50	26.0	.	.
860901	YK	15	.	.	.	0	.	24.50	20.0	.	.	24.00	24.0	.	.
860901	YK	20	.	.	.	0	.	24.50	20.0	.	.	24.50	24.0	.	.
860901	YK	20	.	6	220	0	.	25.00	19.0	.	.	24.50	22.0	.	.
860901	YK	25	.	.	.	0	.	23.00	11.0	.	.	23.00	14.0	.	.
860901	YK	25	.	.	.	0	.	26.50	18.0	.	.	25.00	21.0	.	.
860901	YK	30	.	.	.	0	.	26.50	18.0	.	.	25.00	21.0	.	.
860901	YK	35	.	.	.	0	.	25.00	15.0	.	.	25.00	15.0	.	.
860902	RA	2	.	.	.	0	.	25.00	10.0	.	.	25.90	10.0	.	.
860902	RA	10	.	.	.	0	.	23.00	22.0	.	.	23.00	22.0	.	.
860902	RA	15	.	.	.	0	.	23.00	22.0	.	.	23.00	22.0	.	.
860902	RA	15	.	.	.	0	.	23.00	21.0	.	.	23.00	22.0	.	.
860902	RA	20	.	.	.	0	.	23.00	21.0	.	.	23.00	22.0	.	.
860902	RA	20	.	.	.	0	.	23.00	20.0	.	.	23.00	20.0	.	.
860902	RA	25	.	.	.	0	.	23.00	20.0	.	.	23.00	20.0	.	.
860902	RA	25	.	.	.	0	.	22.80	18.0	.	.	23.00	18.0	.	.
860902	RA	30	.	10	180	0	.	22.80	18.0	.	.	23.00	18.0	.	.
860902	RA	30	.	10	180	0	.	22.50	15.0	.	.	22.50	15.0	.	.
860902	RA	35	.	6	180	0	.	22.50	15.0	.	.	22.50	15.0	.	.
860902	RA	35	.	6	180	0	.	22.50	14.0	.	.	22.20	14.0	.	.
860903	JA	1	.	10	90	0	.	22.50	14.0	.	.	22.20	14.0	.	.
860903	JC	1	.	.	.	0	.	22.00	25.0	.	.	21.00	25.0	.	.
860903	JA	5	.	.	.	0	.	23.50	5.0	.	.	23.50	2.0	.	.
860903	JA	13	.	5	90	0	.	22.00	23.0	.	.	22.00	23.8	.	.
860903	JA	13	.	.	.	0	.	22.00	20.0	.	.	22.00	22.0	.	.
860903	JA	17	.	.	.	0	.	22.00	20.0	.	.	22.00	22.0	.	.
860903	JA	17	.	.	.	0	.	23.00	14.0	.	.	22.50	18.0	.	.
860903	JA	24	.	.	.	0	.	23.00	14.0	.	.	22.50	18.0	.	.
860903	JA	24	.	6	220	0	.	23.00	11.0	.	.	23.00	14.0	.	.
860903	JA	27	.	.	.	0	.	23.50	9.0	.	.	23.00	12.0	.	.
860903	JA	35	.	.	.	0	.	.	.	.	.	.	.	.	.
860903	JA	40	.	.	.	0	.	24.00	8.0	.	.	24.00	9.0	.	.
860903	JA	40	.	.	.	0	.	24.00	7.0	.	.	23.90	7.0	.	.

Table 23.

October									Surface				Bottom			
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)		Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
861001	JA	1		10	360	0			17.00	24.0			17.00	25.0		
861001	JC	1	15.0	10	360	0			17.00	5.0			18.00	6.0		
861001	JC	1				0							17.00	24.0		
861001	JA	5				0			17.50	24.0			17.00	24.0		
861001	JA	13		10	360	0			16.80	20.0			16.00	20.0		
861001	JA	17		10	360	0			16.80	16.0						
861001	JA	17				0							16.00	16.0		
861001	JA	24	17.0	10	360	0			17.00	15.0			16.00	16.0		
861001	JA	24		10	360	0			17.00	15.0			16.00	16.0		
861001	JA	27		10	360	0			17.00	12.0			17.20	14.0		
861001	JA	27		10	360	0			17.00	12.0			17.20	14.0		
861001	JA	35	15.0	10	360	0			17.50	9.0			17.00	10.0		
861001	JA	35	15.0	10	360	0			17.50	6.0			17.00	7.0		
861001	JA	40	14.0	10	360	0			17.00	19.5			16.50	20.2		
861002	RA	2	13.0			0			17.30	19.0			16.80	20.0		
861002	RA	10	13.0			0			17.00	19.0			17.00	19.5		
861002	RA	15	13.0	8	220	0							17.00	19.5		
861002	RA	15	13.0	8	220	0			16.00	18.0						
861002	RA	20	15.0	8	220	0							17.00	18.0		
861002	RA	20	15.0	8	220	0			15.00	16.0						
861002	RA	25	15.0	22		0							15.80	16.0		
861002	RA	25	15.0	8		0			16.00	14.0						
861002	RA	30	16.0	8	220	0							16.00	14.0		
861002	RA	30	16.0	8	220	0			16.50	13.0						
861002	RA	35	18.0	8	220	0							17.90	24.0		
861002	RA	35	18.0	8	220	0			18.00	24.0			17.00	24.0		
861003	YK	2	17.0	5	320	0			17.50	22.0			17.00	22.0		
861003	YK	5				0			17.00							
861003	YK	10	17.0	5	320	0							17.00	22.0		
861003	YK	10	17.0	5	320	0			17.00	20.0						
861003	YK	15	19.5	5	320	0							17.00	20.0		
861003	YK	15	19.5	5	320	0			17.50	18.0						
861003	YK	20	20.0		320	0										
861003	YK	20	20.0		320	0										
861003	YK	25	20.5		320	0							17.00	18.0		
861003	YK	25	20.5		320	0			17.00	16.0			18.00	13.0		
861003	YK	30	19.5			0			18.00	12.0			17.50	6.0		
861003	YK	35	20.5			0			18.00	8.0						

Table 24.

November									Surface				Bottom			
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)		Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
861101	JA	1	9.0	0	0	0			11.00	24.0			12.00			
861101	JC	1	11.5	10	360	0			11.00	3.0			11.50	3.0		
861101	JA	5	8.0	0	0	0			12.50	22.0			12.00	22.0		
861101	JA	5				0			12.00	0.2			12.00	0.2		
861101	JA	13	18.0			0							12.00	16.0		
861101	JA	13	18.0			0			12.00	16.0			12.00	16.0		
861101	JA	17	9.0			0							12.00	12.0		
861101	JA	17	9.0			0			12.00	12.0			12.00	12.0		
861101	JA	24	9.5	10	360	0							11.50	12.0		
861101	JA	24		10	360	0			12.00	9.0						
861101	JA	27	9.0	10	360	0							12.00	8.0		
861101	JA	27		10	360	0			12.00	8.0			12.00	6.0		
861101	JA	35	10.0	10	360	0			12.00	6.0			11.00	20.0		
861101	JA	40	10.5	10	360	0			12.00	20.0			12.00	20.0		
861102	RA	2	9.5		350	0			12.00	20.0			12.00	18.0		
861102	RA	10		10	320	0			12.00	18.0			8.50	17.0		
861102	RA	15	7.5		350	0			11.50	16.0			10.00	17.0		
861102	RA	20	7.0	15	320	0							9.00	14.0		
861102	RA	20	7.0	15	320	0			10.00	14.0						
861102	RA	25	8.0	15	320	0							9.00	12.0		
861102	RA	25	8.0	15	320	0			9.50	12.0						
861102	RA	30	7.0			0							8.50	10.0		
861102	RA	30	7.0			0			9.00	9.0						
861102	RA	35	6.5	15	360	0							12.50	24.0		
861102	RA	35	6.5	15	360	0			12.50	23.0			12.00	22.0		
861103	YK	2		10	360	0			12.00	22.5			11.00	22.0		
861103	YK	5	7.0	10	360	0			11.00	21.5						
861103	YK	10	6.0	10	360	0							10.50	21.0		
861103	YK	10	6.0	10	360	0			10.50	20.0						
861103	YK	15	6.0	10	360	0							10.50	19.5		
861103	YK	15	6.0	10	360	0			10.50	19.0			10.50	19.0		
861103	YK	20	5.0	10	360	0			10.50	18.0			10.50	19.0		
861103	YK	20	5.0	10	360	0			10.50	18.0			10.50	19.0		
861103	YK	25	7.0	10	360	0			10.50	18.0			11.00	15.0		
861103	YK	25	7.0	10	360	0			11.00	11.0			11.50	8.0		
861103	YK	30	0.5	10	360	0			11.50	7.0						
861103	YK	35	6.0	10	360	0										

Table 25.

December

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
861201	JA	1	3.0	.	.	0	.	8.00	20.0	.	.	8.50	20.0	.	.
861201	JA	5	4.0	.	.	0	.	9.00	18.0	.	.	9.00	20.0	.	.
861201	JA	13	6.0	.	.	0	.	7.90	12.0	.	.	8.50	18.0	.	.
861201	JA	17	6.0	.	.	0	.	7.00	12.0	.	.	8.50	12.0	.	.
861201	JA	24	5.8	.	.	0	.	8.00	8.0	.	.	8.00	8.0	.	.
861201	JA	27	9.0	.	.	0	.	8.00	6.0	.	.	8.00	8.0	.	.
861201	JA	35	10.0	.	.	0	.	8.00	2.0	.	.	8.00	4.0	.	.
861201	JA	40	7.5	.	.	0	.	8.00	0.0	.	.	7.80	0.0	.	.
861202	RA	2	8.0	.	.	0	.	8.00	18.0	.	.	8.00	18.2	.	.
861202	RA	10	8.0	5	360	0	.	7.50	16.0	.	.	8.30	17.5	.	.
861202	RA	15	8.0	.	.	0	.	7.50	15.5	.	.	8.50	17.5	.	.
861202	RA	20	8.5	5	360	0	.	7.30	15.0	.	.	8.50	16.5	.	.
861202	RA	25	8.0	5	360	0	.	6.50	12.0	.	.	8.00	15.0	.	.
861202	RA	30	8.0	5	360	0	.	6.50	10.0	.	.	7.00	13.0	.	.
861202	RA	35	10.5	5	360	0	.	6.50	7.0	.	.	6.80	10.0	.	.
861203	YK	2	.	.	.	0	.	9.00	20.0	.	.	9.00	21.0	.	.
861203	YK	5	.	.	.	0	.	8.40	20.0	.	.	9.00	20.0	.	.
861203	YK	10	.	.	.	0	.	8.00	18.0	.	.	8.00	19.0	.	.
861203	YK	15	.	.	.	0	.	7.50	14.0	.	.	8.00	18.0	.	.
861203	YK	20	.	.	.	0	.	6.50	12.0	.	.	6.00	16.0	.	.
861203	YK	25	.	.	.	0	.	7.50	11.0	.	.	7.00	13.0	.	.
861203	YK	30	.	.	.	0	.	7.00	5.0	.	.	7.00	6.0	.	.
861203	YK	35	.	.	.	0	.	7.50	0.0	.	.	7.00	0.0	.	.

Table 26. Species composition, number caught, catch per trawl, and length statistics for **all months, all areas** for the river trawl survey.

- Notes:
- A. The "Number of Species" notation at the top of the table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".
 - B. Catch per trawl for fish species is based on the figure 'Number of Fish Trawls Made' while catch per trawl for blue crabs is based on the sum of 'Number of Fish Trawls Made' and 'Number of Additional Crab Trawls Made'.

Table 26.

Month - All - Pooled

River - All - Pooled

No. of Fish Trawls Made - 374

No. of Add'l Crab Trawls Made - 0

No. of Species - 63

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	111,857	47.9	47.9	299.08	48	0.0	13	95	.
hogchoker	54,937	23.5	71.5	146.89	76	0.1	15	219	.
Atlantic croaker	15,453	6.6	78.1	41.32	68	0.4	12	349	.
spot	14,782	6.3	84.4	39.52	118	0.3	16	300	.
white perch	7,117	3.0	87.5	19.03	129	0.5	19	346	.
weakfish	5,636	2.4	89.9	15.07	103	1.0	19	424	.
blackcheek tonguefish	3,192	1.4	91.3	8.53	86	0.5	15	180	.
spotted hake	2,981	1.3	92.5	7.97	112	0.6	44	237	.
blue crab, male	2,719	1.2	93.7	7.27	78	0.8	3	183	.
Atlantic menhaden	2,072	0.9	94.6	5.54	72	0.8	20	288	.
blue crab, juvenile female	2,033	0.9	95.5	5.44	58	0.7	4	130	.
American eel	1,711	0.7	96.2	4.57	274	1.6	90	764	.
blueback herring	1,388	0.6	96.8	3.71	74	0.3	45	252	.
white catfish	1,377	0.6	97.4	3.68	195	1.9	20	420	.
channel catfish	1,020	0.4	97.8	2.73	211	2.0	23	535	.
blue crab, adult female	785	0.3	98.1	2.10	148	0.4	97	176	.
oyster toadfish	756	0.3	98.5	2.02	196	2.4	28	412	.
northern kingfish	650	0.3	98.8	1.74	73	1.4	20	216	.
alewife	513	0.2	99.0	1.37	86	1.1	27	251	.
summer flounder	479	0.2	99.2	1.28	184	2.6	15	520	.
Atlantic silverside	403	0.2	99.3	1.08	92	0.6	32	121	.
naked goby	195	0.1	99.4	0.52	37	0.5	20	53	.
northern searobin	166	0.1	99.5	0.44	86	1.7	44	190	.
harvestfish	161	0.1	99.6	0.43	45	1.8	14	169	.
black seabass	124	0.1	99.6	0.33	127	3.4	51	230	.
silver perch	122	0.1	99.7	0.33	116	3.0	25	197	.
striped cusk-eel	117	0.1	99.7	0.31	135	3.3	74	228	.
gizzard shad	100	0.0	99.8	0.27	143	2.5	104	265	.
striped bass	74	0.0	99.8	0.20	197	12.8	19	480	.
windowpane	47	0.0	99.8	0.13	117	6.3	45	181	.
Atlantic spadefish	47	0.0	99.8	0.13	71	3.2	26	115	.
northern pipefish	47	0.0	99.9	0.13	159	6.1	72	255	.
American shad	46	0.0	99.9	0.12	108	2.2	84	141	.
butterfish	43	0.0	99.9	0.11	117	5.0	34	216	.
tessellated darter	31	0.0	99.9	0.08	72	1.7	43	93	.
striped anchovy	23	0.0	99.9	0.06	85	4.6	49	118	.
pigfish	20	0.0	99.9	0.05	146	3.4	104	165	.
skilletfish	20	0.0	99.9	0.05	46	3.2	22	77	.
smallmouth flounder	20	0.0	99.9	0.05	91	3.2	56	127	.
feather blenny	15	0.0	100.0	0.04	70	4.2	47	103	.
common carp	12	0.0	100.0	0.03	400	16.7	262	482	.
marginated madtom	9	0.0	100.0	0.02	157	4.7	140	184	.
northern puffer	8	0.0	100.0	0.02	157	17.3	68	211	.
inshore lizardfish	8	0.0	100.0	0.02	209	19.8	94	274	.
spotted seatrout	7	0.0	100.0	0.02	130	3.4	121	146	.
striped searobin	7	0.0	100.0	0.02	146	17.2	87	212	.
bluefish	6	0.0	100.0	0.02	199	24.0	119	268	.
northern stargazer	6	0.0	100.0	0.02	70	4.6	51	82	.
striped mullet	6	0.0	100.0	0.02	177	10.3	155	220	.
blue catfish	6	0.0	100.0	0.02	230	14.8	189	285	.
silver hake	4	0.0	100.0	0.01	57	9.1	41	79	.
conger eel	4	0.0	100.0	0.01	381	8.8	368	407	.
longnose gar	3	0.0	100.0	0.01	667	152.0	372	878	.
sea lamprey	2	0.0	100.0	0.01	152	22.0	130	174	.
lined seahorse	2	0.0	100.0	0.01	50	7.5	42	57	.
spotfin mojarra	2	0.0	100.0	0.01	101	3.5	97	104	.
least brook lamprey	2	0.0	100.0	0.01	137	1.0	136	138	.
cobia	1	0.0	100.0	0.00	179	.	179	179	.
southern kingfish	1	0.0	100.0	0.00	45	.	45	45	.
brown bullhead	1	0.0	100.0	0.00	91	.	91	91	.
bluegill	1	0.0	100.0	0.00	43	.	43	43	.
pipefish	1	0.0	100.0	0.00	210	.	210	210	.
Atlantic stingray	1	0.0	100.0	0.00	233	.	233	233	.
All Species Combined	233,379								

Tables 27-29. Species composition, number caught, catch per trawl ,and length statistics for **all months, by river**, for the river trawl survey.

Notes:

A. The "Number of Species" notation at the top of each table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".

Table 27.

Month - All - Pooled

River - James

No. of Fish Trawls Made - 135

No. of Add'l Crab Trawls Made - 0

No. of Species - 56

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	75,832	60.4	60.4	561.72	45	0.1	13	94	.
hogchoker	30,156	24.0	84.4	223.38	66	0.1	15	192	.
spot	4,797	3.8	88.3	35.53	109	0.4	16	231	.
Atlantic croaker	2,781	2.2	90.5	20.60	86	1.2	16	346	.
spotted hake	1,551	1.2	91.7	11.49	121	0.7	44	237	.
weakfish	1,337	1.1	92.8	9.90	101	1.6	23	333	.
white perch	1,270	1.0	93.8	9.41	121	1.0	29	274	.
blackcheek tonguefish	1,119	0.9	94.7	8.29	97	0.7	15	177	.
blue crab, male	1,090	0.9	95.5	8.07	79	1.4	3	177	.
channel catfish	928	0.7	96.3	6.87	206	2.0	23	494	.
blueback herring	847	0.7	97.0	6.27	71	0.2	45	173	.
blue crab, juvenile female	788	0.6	97.6	5.84	54	1.1	4	128	.
American eel	455	0.4	98.0	3.37	262	2.9	102	671	.
white catfish	446	0.4	98.3	3.30	146	2.8	20	375	.
blue crab, adult female	445	0.4	98.7	3.30	148	0.5	112	176	.
oyster toadfish	220	0.2	98.8	1.63	181	4.2	28	331	.
Atlantic menhaden	215	0.2	99.0	1.59	94	3.7	20	254	.
summer flounder	167	0.1	99.1	1.24	185	5.3	22	520	.
northern searobin	150	0.1	99.3	1.11	88	1.7	48	190	.
northern kingfish	138	0.1	99.4	1.02	71	3.5	20	216	.
black seabass	122	0.1	99.5	0.90	126	3.4	51	230	.
striped cusk-eel	78	0.1	99.5	0.58	132	4.0	75	221	.
gizzard shad	62	0.0	99.6	0.46	148	3.0	112	255	.
Atlantic silverside	61	0.0	99.6	0.45	93	1.4	65	114	.
harvestfish	55	0.0	99.7	0.41	43	2.9	16	93	.
windowpane	42	0.0	99.7	0.31	125	6.1	57	181	.
silver perch	42	0.0	99.7	0.31	100	5.3	25	184	.
butterfish	32	0.0	99.8	0.24	114	5.2	34	216	.
American shad	32	0.0	99.8	0.24	108	2.6	86	141	.
tessellated darter	29	0.0	99.8	0.21	72	1.8	43	93	.
northern pipefish	28	0.0	99.8	0.21	172	8.5	72	255	.
striped bass	25	0.0	99.9	0.19	190	17.3	82	391	.
Atlantic spadefish	25	0.0	99.9	0.19	68	4.4	26	97	.
pigfish	20	0.0	99.9	0.15	146	3.4	104	165	.
smallmouth flounder	20	0.0	99.9	0.15	91	3.2	56	127	.
naked goby	19	0.0	99.9	0.14	30	5.8	20	49	.
striped anchovy	18	0.0	99.9	0.13	85	1.7	49	118	.
common carp	12	0.0	99.9	0.09	400	16.7	262	482	.
alewife	9	0.0	100.0	0.07	132	19.9	78	248	.
marginated madtom	9	0.0	100.0	0.07	157	4.7	140	184	.
feather blenny	7	0.0	100.0	0.05	80	6.0	53	103	.
bluefish	6	0.0	100.0	0.04	199	24.0	119	268	.
northern puffer	6	0.0	100.0	0.04	166	21.5	68	211	.
striped searobin	6	0.0	100.0	0.04	145	20.3	87	212	.
inshore lizardfish	5	0.0	100.0	0.04	211	30.7	94	274	.
blue catfish	3	0.0	100.0	0.02	203	6.9	189	211	.
longnose gar	2	0.0	100.0	0.01	625	253.0	372	878	.
lined seahorse	2	0.0	100.0	0.01	50	7.5	42	57	.
skilletfish	2	0.0	100.0	0.01	40	15.5	24	55	.
conger eel	2	0.0	100.0	0.01	388	19.5	368	407	.
spotfin mojarra	2	0.0	100.0	0.01	101	3.5	97	104	.
southern kingfish	1	0.0	100.0	0.01	45	.	45	45	.
brown bullhead	1	0.0	100.0	0.01	91	.	91	91	.
bluegill	1	0.0	100.0	0.01	43	.	43	43	.
Atlantic stingray	1	0.0	100.0	0.01	233	.	233	233	.
striped mullet	1	0.0	100.0	0.01	220	.	220	220	.
All Species Combined	125,520								

Table 28.

Month - All - Pooled
 River - Rappahannock
 No. of Fish Trawls Made - 117
 No. of Add'l Crab Trawls Made - 0
 No. of Species - 41

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	12,708	25.5	25.5	108.62	84	0.2	22	178	.
bay anchovy	12,293	24.6	50.1	105.07	52	0.1	18	92	.
spot	7,261	14.6	64.7	62.06	120	0.3	20	230	.
Atlantic croaker	4,670	9.4	74.0	39.91	46	0.3	14	313	.
white perch	4,472	9.0	83.0	38.22	121	0.5	67	297	.
Atlantic menhaden	1,309	2.6	85.6	11.19	79	0.8	25	288	.
American eel	1,014	2.0	87.7	8.67	275	2.1	90	764	.
weakfish	915	1.8	89.5	7.82	146	2.8	20	372	.
blue crab, male	744	1.5	91.0	6.36	87	1.5	9	176	.
blackcheek tonguefish	677	1.4	92.3	5.79	74	0.7	33	166	.
blue crab, juvenile female	668	1.3	93.7	5.71	66	1.1	12	130	.
spotted hake	657	1.3	95.0	5.62	94	1.1	52	198	.
blueback herring	476	1.0	96.0	4.07	77	0.9	54	252	.
alewife	441	0.9	96.8	3.77	83	1.1	42	251	.
white catfish	392	0.8	97.6	3.35	212	2.1	104	420	.
blue crab, adult female	238	0.5	98.1	2.03	148	0.9	97	176	.
northern kingfish	197	0.4	98.5	1.68	87	2.1	27	180	.
naked goby	163	0.3	98.8	1.39	38	0.5	26	53	.
oyster toadfish	143	0.3	99.1	1.22	181	6.0	42	412	.
Atlantic silverside	109	0.2	99.3	0.93	99	0.9	75	119	.
channel catfish	87	0.2	99.5	0.74	267	5.7	171	535	.
summer flounder	65	0.1	99.6	0.56	218	5.8	72	426	.
harvestfish	46	0.1	99.7	0.39	39	2.7	14	80	.
gizzard shad	37	0.1	99.8	0.32	135	4.2	105	265	.
striped bass	27	0.1	99.9	0.23	200	22.3	86	460	.
northern pipefish	15	0.0	99.9	0.13	142	7.7	105	202	.
skilletfish	11	0.0	99.9	0.09	44	3.4	22	62	.
American shad	7	0.0	99.9	0.06	112	4.4	101	134	.
northern scarobin	7	0.0	99.9	0.06	63	3.5	46	76	.
butterfish	5	0.0	99.9	0.04	147	23.2	67	191	.
windowpane	5	0.0	100.0	0.04	55	3.9	45	69	.
Atlantic spadefish	4	0.0	100.0	0.03	64	12.3	28	82	.
feather blenny	3	0.0	100.0	0.03	64	9.8	54	84	.
blue catfish	3	0.0	100.0	0.03	256	18.0	223	285	.
tessellated darter	2	0.0	100.0	0.02	64	1.0	63	65	.
silver perch	2	0.0	100.0	0.02	156	30.5	125	186	.
striped mullet	2	0.0	100.0	0.02	169	7.0	162	176	.
northern puffer	1	0.0	100.0	0.01	154	.	154	154	.
striped anchovy	1	0.0	100.0	0.01	102	.	102	102	.
pipefish	1	0.0	100.0	0.01	210	.	210	210	.
inshore lizardfish	1	0.0	100.0	0.01	223	.	223	223	.
All Species Combined	49,879								

Table 29.

Month - All - Pooled

River - York

No. of Fish Trawls Made - 122

No. of Add'l Crab Trawls Made - 0

No. of Species - 48

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	23,732	40.9	40.9	194.52	51	0.1	16	95	.
hogchoker	12,073	20.8	61.8	98.96	90	0.3	21	219	.
Atlantic croaker	8,002	13.8	75.6	65.59	75	0.6	12	349	.
weakfish	3,384	5.8	81.4	27.74	93	1.3	19	424	.
spot	2,724	4.7	86.1	22.33	127	0.7	17	300	.
blackcheck tonguefish	1,396	2.4	88.5	11.44	83	0.8	36	180	.
white perch	1,375	2.4	90.9	11.27	162	1.2	19	346	.
blue crab, male	885	1.5	92.4	7.25	71	1.4	10	183	.
spotted hake	773	1.3	93.7	6.34	109	1.3	46	237	.
blue crab, juvenile female	577	1.0	94.7	4.73	53	1.2	11	129	.
Atlantic menhaden	548	0.9	95.7	4.49	46	1.0	20	229	.
white catfish	539	0.9	96.6	4.42	223	3.3	86	415	.
oyster toadfish	393	0.7	97.3	3.22	210	3.2	46	328	.
northern kingfish	315	0.5	97.8	2.58	65	1.8	22	172	.
summer flounder	247	0.4	98.2	2.02	173	3.1	15	341	.
American eel	242	0.4	98.7	1.98	298	5.2	134	720	.
Atlantic silverside	233	0.4	99.1	1.91	88	0.9	32	121	.
blue crab, adult female	102	0.2	99.2	0.84	146	1.4	97	176	.
silver perch	78	0.1	99.4	0.64	124	3.2	32	197	.
blueback herring	65	0.1	99.5	0.53	77	0.7	60	89	.
alewife	63	0.1	99.6	0.52	98	2.3	27	130	.
harvestfish	60	0.1	99.7	0.49	51	3.4	18	169	.
striped cusk-eel	39	0.1	99.8	0.32	139	5.8	74	228	.
striped bass	22	0.0	99.8	0.18	202	27.5	19	480	.
Atlantic spadefish	18	0.0	99.8	0.15	76	4.9	28	115	.
naked goby	13	0.0	99.9	0.11	36	1.8	26	48	.
northern searobin	9	0.0	99.9	0.07	68	8.9	44	130	.
American shad	7	0.0	99.9	0.06	100	6.8	84	132	.
spotted seatrout	7	0.0	99.9	0.06	130	3.4	121	146	.
skilletfish	7	0.0	99.9	0.06	52	6.6	23	77	.
butterfish	6	0.0	99.9	0.05	103	8.9	66	126	.
northern stargazer	6	0.0	99.9	0.05	70	4.6	51	82	.
channel catfish	5	0.0	99.9	0.04	244	37.9	153	367	.
feather blenny	5	0.0	99.9	0.04	61	4.9	47	76	.
silver hake	4	0.0	100.0	0.03	57	9.1	41	79	.
striped anchovy	4	0.0	100.0	0.03	81	3.3	72	87	.
northern pipefish	4	0.0	100.0	0.03	133	12.6	108	164	.
striped mullet	3	0.0	100.0	0.02	169	12.2	155	193	.
black seabass	2	0.0	100.0	0.02	184	12.5	171	196	.
sea lamprey	2	0.0	100.0	0.02	152	22.0	130	174	.
inshore lizardfish	2	0.0	100.0	0.02	199	36.5	162	235	.
conger eel	2	0.0	100.0	0.02	375	1.5	373	376	.
least brook lamprey	2	0.0	100.0	0.02	137	1.0	136	138	.
cobia	1	0.0	100.0	0.01	179	.	179	179	.
northern puffer	1	0.0	100.0	0.01	108	.	108	108	.
gizzard shad	1	0.0	100.0	0.01	104	.	104	104	.
striped searobin	1	0.0	100.0	0.01	152	.	152	152	.
longnose gar	1	0.0	100.0	0.01	751	.	751	751	.
All Species Combined	57,980								

Tables 30-76. Species composition, number caught, catch per trawl, and length statistics **by month and river** for the river trawl survey.

- Notes:
- A. The "Number of Species" notation at the top of each table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".
 - B. Tables pooled for all rivers, for each month appear as follows:

January	Table 33	Page 140
February	Table 37	Page 142
March	Table 41	Page 144
April	Table 45	Page 146
May	Table 49	Page 148
June	Table 53	Page 150
July	Table 57	Page 152
August	Table 61	Page 154
September	Table 65	Page 156
October	Table 69	Page 158
November	Table 73	Page 160
December	Table 77	Page 162
 - C. Catch per trawl for fish species is based on the figure 'Number of Fish Trawls Made' while catch per trawl for blue crabs is based on the sum of 'Number of Fish Trawls Made' and 'Number of Additional Crab Trawls Made'.

Table 30.

Month - January									
River - James									
No. of Fish Trawls Made - 9									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 21									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	49,272	97.1	97.1	5474.67	45	0.1	22	78	.
hogchoker	851	1.7	98.8	94.56	65	0.7	16	150	.
white perch	242	0.5	99.3	26.89	112	1.7	70	217	.
channel catfish	147	0.3	99.6	16.33	199	4.4	49	340	.
white catfish	117	0.2	99.8	13.00	102	3.7	47	259	.
tessellated darter	22	0.0	99.9	2.44	72	1.4	63	86	.
Atlantic silverside	20	0.0	99.9	2.22	97	2.4	77	114	.
Atlantic croaker	13	0.0	99.9	1.44	49	6.3	20	84	.
striped bass	6	0.0	99.9	0.67	184	29.1	99	249	.
Atlantic menhaden	6	0.0	99.9	0.67	68	13.3	26	100	.
gizzard shad	5	0.0	100.0	0.56	141	8.7	117	166	.
American eel	4	0.0	100.0	0.44	264	54.3	170	414	.
marginated madtom	4	0.0	100.0	0.44	149	4.8	140	160	.
blueback herring	3	0.0	100.0	0.33	83	0.9	81	84	.
naked goby	3	0.0	100.0	0.33	30	5.8	24	42	.
blue crab, juvenile female	3	0.0	100.0	0.33	21	1.9	19	25	.
blue crab, male	2	0.0	100.0	0.22	19	16.0	3	35	.
alewife	1	0.0	100.0	0.11	78	.	78	78	.
brown bullhead	1	0.0	100.0	0.11	91	.	91	91	.
oyster toadfish	1	0.0	100.0	0.11	110	.	110	110	.
striped mullet	1	0.0	100.0	0.11	220	.	220	220	.
All Species Combined	50,724								

Table 31.

Month - January									
River - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 17									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
white perch	3,028	88.1	88.1	432.57	103	0.3	67	247	.
hogchoker	97	2.8	90.9	13.86	70	2.0	39	120	.
Atlantic silverside	94	2.7	93.7	13.43	99	0.9	75	119	.
blueback herring	92	2.7	96.3	13.14	81	0.5	67	97	.
bay anchovy	31	0.9	97.2	4.43	44	1.8	26	61	.
gizzard shad	25	0.7	98.0	3.57	127	2.3	105	150	.
striped bass	16	0.5	98.4	2.29	225	34.3	88	460	.
channel catfish	16	0.5	98.9	2.29	248	6.4	171	290	.
Atlantic croaker	11	0.3	99.2	1.57	35	4.9	16	74	.
Atlantic menhaden	9	0.3	99.5	1.29	100	5.0	81	123	.
alewife	5	0.1	99.6	0.71	93	5.8	82	114	.
skilletfish	4	0.1	99.7	0.57	48	4.3	40	59	.
naked goby	3	0.1	99.8	0.43	40	3.8	34	47	.
tessellated darter	2	0.1	99.9	0.29	64	1.0	63	65	.
blackcheek tonguefish	2	0.1	99.9	0.29	94	10.5	83	104	.
striped mullet	1	0.0	100.0	0.14	176	.	176	176	.
blue crab, male	1	0.0	100.0	0.14	90	.	90	90	.
All Species Combined	3,437								

Table 32.

Month - January
 River - York
 No. of Fish Trawls Made - 6
 No. of Add'l Crab Trawls Made - 0
 No. of Species - 18

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	1,795	64.8	64.8	299.17	43	0.2	16	63	.
Atlantic croaker	416	15.0	79.8	69.33	33	0.6	16	93	.
Atlantic silverside	221	8.0	87.8	36.83	88	0.9	58	121	.
white perch	147	5.3	93.1	24.50	160	2.7	102	292	.
hogchoker	134	4.8	97.9	22.33	98	2.0	40	146	.
alewife	16	0.6	98.5	2.67	96	3.4	78	118	.
Atlantic menhaden	11	0.4	98.9	1.83	85	8.4	20	128	.
striped bass	9	0.3	99.2	1.50	282	41.9	122	480	.
blueback herring	5	0.2	99.4	0.83	68	3.9	60	81	.
blackcheck tonguefish	3	0.1	99.5	0.50	75	4.4	67	82	.
oyster toadfish	3	0.1	99.6	0.50	238	23.3	206	283	.
least brook lamprey	2	0.1	99.7	0.33	137	1.0	136	138	.
blue crab, male	2	0.1	99.8	0.33	120	11.5	108	131	.
summer flounder	1	0.0	99.8	0.17	15	.	15	15	.
American shad	1	0.0	99.9	0.17	132	.	132	132	.
feather blenny	1	0.0	99.9	0.17	47	.	47	47	.
skilletfish	1	0.0	99.9	0.17	47	.	47	47	.
striped mullet	1	0.0	100.0	0.17	193	.	193	193	.
All Species Combined	2,769								

Table 33.

Month - January
 River - All - Pooled
 No. of Fish Trawls Made - 22
 No. of Add'l Crab Trawls Made - 0
 No. of Species - 28

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	51,098	89.8	89.8	2322.64	45	0.1	16	78	.
white perch	3,417	6.0	95.8	155.32	106	0.4	67	292	.
hogchoker	1,082	1.9	97.7	49.18	69	0.7	16	150	.
Atlantic croaker	440	0.8	98.4	20.00	33	0.7	16	93	.
Atlantic silverside	335	0.6	99.0	15.23	92	0.7	58	121	.
channel catfish	163	0.3	99.3	7.41	204	4.2	49	340	.
white catfish	117	0.2	99.5	5.32	102	3.7	47	259	.
blueback herring	100	0.2	99.7	4.55	80	0.6	60	97	.
striped bass	31	0.1	99.7	1.41	234	22.5	88	480	.
gizzard shad	30	0.1	99.8	1.36	130	2.5	105	166	.
Atlantic menhaden	26	0.0	99.8	1.18	86	5.3	20	128	.
tessellated darter	24	0.0	99.9	1.09	71	1.3	63	86	.
alewife	22	0.0	99.9	1.00	94	2.9	78	118	.
naked goby	6	0.0	99.9	0.27	35	3.8	24	47	.
blackcheck tonguefish	5	0.0	99.9	0.23	83	6.1	67	104	.
skilletfish	5	0.0	99.9	0.23	48	3.3	40	59	.
blue crab, male	5	0.0	100.0	0.23	73	23.7	3	131	.
American eel	4	0.0	100.0	0.18	264	54.3	170	414	.
marginated madtom	4	0.0	100.0	0.18	149	4.8	140	160	.
oyster toadfish	4	0.0	100.0	0.18	206	35.9	110	283	.
striped mullet	3	0.0	100.0	0.14	196	12.8	176	220	.
blue crab, juvenile female	3	0.0	100.0	0.14	21	1.9	19	25	.
least brook lamprey	2	0.0	100.0	0.09	137	1.0	136	138	.
summer flounder	1	0.0	100.0	0.05	15	.	15	15	.
American shad	1	0.0	100.0	0.05	132	.	132	132	.
brown bullhead	1	0.0	100.0	0.05	91	.	91	91	.
feather blenny	1	0.0	100.0	0.05	47	.	47	47	.
blue crab	1	0.0	100.0	0.05	89	.	89	89	.
All Species Combined	56,931								

Table 34.

Month - February									
River - James									
No. of Fish Trawls Made - 9									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 20									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	2,897	60.8	60.8	321.89	44	0.1	25	78	.
hogchoker	775	16.3	77.0	86.11	63	0.7	26	133	.
white perch	686	14.4	91.4	76.22	114	1.1	74	274	.
Atlantic croaker	93	2.0	93.4	10.33	51	1.3	26	87	.
channel catfish	85	1.8	95.2	9.44	190	5.9	59	364	.
blueback herring	83	1.7	96.9	9.22	83	1.2	72	173	.
white catfish	69	1.4	98.3	7.67	155	6.1	65	286	.
gizzard shad	49	1.0	99.4	5.44	149	2.8	112	194	.
striped bass	7	0.1	99.5	0.78	120	20.7	82	239	.
Atlantic menhaden	5	0.1	99.6	0.56	82	4.3	70	93	.
alewife	4	0.1	99.7	0.44	110	2.7	102	115	.
tessellated darter	4	0.1	99.8	0.44	75	6.1	66	93	.
American eel	2	0.0	99.8	0.22	269	18.0	251	287	.
Atlantic silverside	2	0.0	99.9	0.22	84	2.0	82	86	.
spot	1	0.0	99.9	0.11	107	.	107	107	.
northern pipefish	1	0.0	99.9	0.11	180	.	180	180	.
feather blenny	1	0.0	99.9	0.11	53	.	53	53	.
oyster toadfish	1	0.0	100.0	0.11	61	.	61	61	.
blue crab, juvenile female	1	0.0	100.0	0.11	22	.	22	22	.
blue crab, adult female	1	0.0	100.0	0.11	153	.	153	153	.
All Species Combined	4,767								

Table 35.

Month - February									
River - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 16									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	1,337	60.0	60.0	191.00	42	0.2	27	68	.
blueback herring	234	10.5	70.5	33.43	82	0.3	67	97	.
white perch	225	10.1	80.6	32.14	126	2.3	76	226	.
hogchoker	223	10.0	90.6	31.86	64	1.4	34	141	.
alewife	140	6.3	96.9	20.00	103	2.1	74	240	.
Atlantic menhaden	23	1.0	97.9	3.29	59	7.2	26	119	.
striped bass	10	0.4	98.3	1.43	156	19.3	86	290	.
white catfish	7	0.3	98.7	1.00	225	8.8	196	267	.
gizzard shad	7	0.3	99.0	1.00	138	3.3	127	153	.
Atlantic silverside	7	0.3	99.3	1.00	97	3.6	81	109	.
blackcheek tonguefish	6	0.3	99.6	0.86	65	5.5	44	82	.
channel catfish	5	0.2	99.8	0.71	357	48.7	251	535	.
blue crab, male	2	0.1	99.9	0.29	85	16.0	69	101	.
Atlantic croaker	1	0.0	99.9	0.14	37	.	37	37	.
skilletfish	1	0.0	100.0	0.14	44	.	44	44	.
blue crab, juvenile female	1	0.0	100.0	0.14	16	.	16	16	.
All Species Combined	2,229								

Table 36.

Month - February River - York No. of Fish Trawls Made - 8 No. of Add'l Crab Trawls Made - 0 No. of Species - 19									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	2,945	82.3	82.3	368.13	43	0.1	17	73	.
white perch	265	7.4	89.7	33.13	159	3.0	67	275	.
Atlantic croaker	115	3.2	93.0	14.38	31	0.7	17	61	.
hogchoker	107	3.0	95.9	13.38	94	2.3	26	151	.
blueback herring	57	1.6	97.5	7.13	77	0.6	65	87	.
alewife	22	0.6	98.2	2.75	100	3.8	64	128	.
Atlantic menhaden	20	0.6	98.7	2.50	31	2.4	25	75	.
white catfish	13	0.4	99.1	1.63	190	14.9	102	283	.
Atlantic silverside	10	0.3	99.4	1.25	89	3.4	66	102	.
striped bass	7	0.2	99.6	0.88	185	35.5	19	283	.
American eel	4	0.1	99.7	0.50	231	34.0	134	283	.
blackcheek tonguefish	3	0.1	99.7	0.38	57	4.7	48	64	.
channel catfish	2	0.1	99.8	0.25	165	12.0	153	177	.
sea lamprey	2	0.1	99.9	0.25	152	22.0	130	174	.
summer flounder	1	0.0	99.9	0.13	17	.	17	17	.
American shad	1	0.0	99.9	0.13	109	.	109	109	.
gizzard shad	1	0.0	99.9	0.13	104	.	104	104	.
skilletfish	1	0.0	100.0	0.13	43	.	43	43	.
oyster toadfish	1	0.0	100.0	0.13	54	.	54	54	.
All Species Combined	3,577								

Table 37.

Month - February River - All - Pooled No. of Fish Trawls Made - 24 No. of Add'l Crab Trawls Made - 0 No. of Species - 26									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	7,179	67.9	67.9	299.13	43	0.1	17	78	.
white perch	1,176	11.1	79.0	49.00	127	1.2	67	275	.
hogchoker	1,105	10.5	89.5	46.04	66	0.7	26	151	.
blueback herring	374	3.5	93.0	15.58	81	0.3	65	173	.
Atlantic croaker	209	2.0	95.0	8.71	40	1.0	17	87	.
alewife	166	1.6	96.6	6.92	103	1.8	64	240	.
channel catfish	92	0.9	97.4	3.83	199	7.2	59	535	.
white catfish	89	0.8	98.3	3.71	165	5.7	65	286	.
gizzard shad	57	0.5	98.8	2.38	147	2.6	104	194	.
Atlantic menhaden	48	0.5	99.3	2.00	50	4.3	25	119	.
striped bass	24	0.2	99.5	1.00	154	14.7	19	290	.
Atlantic silverside	19	0.2	99.7	0.79	91	2.4	66	109	.
blackcheek tonguefish	9	0.1	99.8	0.38	62	4.0	44	82	.
American eel	6	0.1	99.8	0.25	243	23.5	134	287	.
tessellated darter	4	0.0	99.8	0.17	75	6.1	66	93	.
sea lamprey	2	0.0	99.9	0.08	152	22.0	130	174	.
skilletfish	2	0.0	99.9	0.08	44	0.5	43	44	.
oyster toadfish	2	0.0	99.9	0.08	58	3.5	54	61	.
blue crab, male	2	0.0	99.9	0.08	85	16.0	69	101	.
blue crab, juvenile female	2	0.0	99.9	0.08	19	3.0	16	22	.
summer flounder	1	0.0	100.0	0.04	17	.	17	17	.
American shad	1	0.0	100.0	0.04	109	.	109	109	.
spot	1	0.0	100.0	0.04	107	.	107	107	.
northern pipefish	1	0.0	100.0	0.04	180	.	180	180	.
feather blenny	1	0.0	100.0	0.04	53	.	53	53	.
blue crab, adult female	1	0.0	100.0	0.04	153	.	153	153	.
All Species Combined	10,573								

Table 38.

Month - March

River - James

No. of Fish Trawls Made - 9

No. of Add'l Crab Trawls Made - 0

No. of Species - 22

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	3,461	52.6	52.6	384.56	53	0.2	30	89	.
hogchoker	2,195	33.3	85.9	243.89	62	0.5	24	139	.
spotted hake	595	9.0	94.9	66.11	107	0.8	44	166	.
channel catfish	69	1.0	96.0	7.67	201	6.6	60	315	.
Atlantic menhaden	48	0.7	96.7	5.33	104	6.3	25	250	.
American eel	45	0.7	97.4	5.00	267	14.7	132	671	.
Atlantic croaker	39	0.6	98.0	4.33	67	5.1	28	133	.
white catfish	34	0.5	98.5	3.78	161	10.5	65	335	.
American shad	30	0.5	98.9	3.33	110	2.6	86	141	.
blue crab, male	25	0.4	99.3	2.78	55	8.5	13	134	.
blue crab, juvenile female	10	0.2	99.5	1.11	41	9.7	4	96	.
white perch	9	0.1	99.6	1.00	130	12.5	85	200	.
windowpane	7	0.1	99.7	0.78	65	2.2	57	75	.
summer flounder	6	0.1	99.8	0.67	196	31.1	56	285	.
blackcheek tonguefish	6	0.1	99.9	0.67	69	6.7	50	98	.
alewife	1	0.0	99.9	0.11	102	.	102	102	.
striped bass	1	0.0	99.9	0.11	145	.	145	145	.
northern searobin	1	0.0	99.9	0.11	72	.	72	72	.
tessellated darter	1	0.0	100.0	0.11	88	.	88	88	.
northern pipefish	1	0.0	100.0	0.11	91	.	91	91	.
naked goby	1	0.0	100.0	0.11	40	.	40	40	.
skilletfish	1	0.0	100.0	0.11	55	.	55	55	.
All Species Combined	6,586								

Table 39.

Month - March

River - Rappahannock

No. of Fish Trawls Made - 8

No. of Add'l Crab Trawls Made - 0

No. of Species - 12

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	1,167	56.7	56.7	145.88	77	0.7	33	171	.
bay anchovy	459	22.3	79.0	57.38	42	0.4	28	87	.
white perch	112	5.4	84.4	14.00	179	2.5	108	275	.
Atlantic menhaden	99	4.8	89.2	12.38	59	4.2	25	175	.
white catfish	92	4.5	93.7	11.50	198	4.1	105	330	.
American eel	61	3.0	96.6	7.63	284	7.6	128	507	.
channel catfish	25	1.2	97.9	3.13	265	7.0	218	352	.
spotted hake	22	1.1	98.9	2.75	93	4.6	56	131	.
blue crab, male	17	0.8	99.8	2.13	49	7.9	12	94	.
blue crab, juvenile female	3	0.1	99.9	0.38	60	13.7	33	76	.
skilletfish	1	0.0	100.0	0.13	42	.	42	42	.
oyster toadfish	1	0.0	100.0	0.13	67	.	67	67	.
All Species Combined	2,059								

Table 40.

Month - March									
River - York									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 17									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	5,743	82.3	82.3	717.88	47	0.2	24	88	.
hogchoker	657	9.4	91.7	82.13	97	0.8	24	188	.
spotted hake	171	2.4	94.1	21.38	90	1.8	46	152	.
white perch	107	1.5	95.7	13.38	171	3.4	91	254	.
white catfish	104	1.5	97.2	13.00	209	6.5	86	371	.
Atlantic croaker	62	0.9	98.1	7.75	40	1.3	22	63	.
blue crab, male	38	0.5	98.6	4.75	23	2.1	11	88	.
blue crab, juvenile female	28	0.4	99.0	3.50	22	1.0	14	36	.
Atlantic menhaden	27	0.4	99.4	3.38	42	5.0	26	106	.
alewife	17	0.2	99.6	2.13	107	2.8	91	130	.
blackcheek tonguefish	11	0.2	99.8	1.38	58	3.6	42	83	.
American eel	6	0.1	99.9	0.75	332	34.6	218	481	.
blueback herring	3	0.0	99.9	0.38	77	6.9	65	89	.
channel catfish	2	0.0	99.9	0.25	320	47.0	273	367	.
oyster toadfish	2	0.0	100.0	0.25	181	24.5	156	205	.
summer flounder	1	0.0	100.0	0.13	206	.	206	206	.
feather blenny	1	0.0	100.0	0.13	66	.	66	66	.
All Species Combined	6,980								

Table 41.

Month - March									
River - All - Pooled									
No. of Fish Trawls Made - 25									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 25									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	9,663	61.8	61.8	386.52	49	0.1	24	89	.
hogchoker	4,019	25.7	87.6	160.76	72	0.4	24	188	.
spotted hake	788	5.0	92.6	31.52	103	0.8	44	166	.
white catfish	230	1.5	94.1	9.20	198	3.9	65	371	.
white perch	228	1.5	95.5	9.12	173	2.2	85	275	.
Atlantic menhaden	174	1.1	96.7	6.96	69	3.5	25	250	.
American eel	112	0.7	97.4	4.48	280	7.5	128	671	.
Atlantic croaker	101	0.6	98.0	4.04	50	2.5	22	133	.
channel catfish	96	0.6	98.6	3.84	220	6.1	60	367	.
blue crab, male	80	0.5	99.1	3.20	39	3.6	11	134	.
blue crab, juvenile female	41	0.3	99.4	1.64	29	3.2	4	96	.
American shad	30	0.2	99.6	1.20	110	2.6	86	141	.
alewife	18	0.1	99.7	0.72	107	2.7	91	130	.
blackcheek tonguefish	17	0.1	99.8	0.68	62	3.5	42	98	.
summer flounder	7	0.0	99.9	0.28	198	26.3	56	285	.
windowpane	7	0.0	99.9	0.28	65	2.2	57	75	.
blueback herring	3	0.0	99.9	0.12	77	6.9	65	89	.
oyster toadfish	3	0.0	99.9	0.12	143	40.4	67	205	.
skilletfish	2	0.0	100.0	0.08	49	6.5	42	55	.
striped bass	1	0.0	100.0	0.04	145	.	145	145	.
northern searobin	1	0.0	100.0	0.04	72	.	72	72	.
tessellated darter	1	0.0	100.0	0.04	88	.	88	88	.
northern pipefish	1	0.0	100.0	0.04	91	.	91	91	.
naked goby	1	0.0	100.0	0.04	40	.	40	40	.
feather blenny	1	0.0	100.0	0.04	66	.	66	66	.
All Species Combined	15,625								

Table 42.

Month - April									
River - James									
No. of Fish Trawls Made - 9									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 27									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	2,830	51.2	51.2	314.44	76	0.3	24	192	.
bay anchovy	1,072	19.4	70.5	119.11	45	0.3	30	85	.
spotted hake	894	16.2	86.7	99.33	128	0.9	54	196	.
American eel	173	3.1	89.8	19.22	258	4.5	102	566	.
blackcheek tonguefish	134	2.4	92.3	14.89	75	1.6	41	159	.
Atlantic croaker	79	1.4	93.7	8.78	89	4.0	35	206	.
channel catfish	74	1.3	95.0	8.22	225	7.2	112	490	.
white perch	54	1.0	96.0	6.00	143	4.4	72	231	.
spot	51	0.9	96.9	5.67	37	5.7	16	143	.
blue crab, male	47	0.8	97.8	5.22	82	6.1	20	173	.
Atlantic menhaden	44	0.8	98.6	4.89	133	7.8	25	254	.
white catfish	26	0.5	99.0	2.89	167	10.9	82	280	.
blue crab, juvenile female	19	0.3	99.4	2.11	71	6.4	17	103	.
oyster toadfish	7	0.1	99.5	0.78	166	18.0	66	206	.
summer flounder	5	0.1	99.6	0.56	144	49.5	22	245	.
windowpane	3	0.1	99.7	0.33	88	10.8	68	105	.
northern scarobin	3	0.1	99.7	0.33	64	14.2	48	92	.
northern pipefish	3	0.1	99.8	0.33	164	27.1	125	216	.
striped cusk-eel	3	0.1	99.8	0.33	111	36.0	75	183	.
black scabbass	2	0.0	99.9	0.22	59	8.0	51	67	.
weakfish	2	0.0	99.9	0.22	164	6.5	157	170	.
alewife	1	0.0	99.9	0.11	248	.	248	248	.
striped bass	1	0.0	99.9	0.11	292	.	292	292	.
longnose gar	1	0.0	99.9	0.11	372	.	372	372	.
marginated madtom	1	0.0	100.0	0.11	172	.	172	172	.
naked goby	1	0.0	100.0	0.11	30	.	30	30	.
feather blenny	1	0.0	100.0	0.11	73	.	73	73	.
All Species Combined	5,531								

Table 43.

Month - April									
River - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 22									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	1,782	43.8	43.8	254.57	59	0.2	26	84	.
hogchoker	1,114	27.4	71.2	159.14	90	0.6	28	168	.
spotted hake	566	13.9	85.1	80.86	88	1.0	52	162	.
American eel	271	6.7	91.8	38.71	237	3.5	129	366	.
white perch	87	2.1	93.9	12.43	143	3.6	81	216	.
Atlantic menhaden	60	1.5	95.4	8.57	113	2.7	33	176	.
white catfish	50	1.2	96.7	7.14	235	6.0	174	420	.
blue crab, male	39	1.0	97.6	5.57	58	6.4	9	136	.
blue crab, juvenile female	32	0.8	98.4	4.57	41	5.2	16	122	.
blackcheek tonguefish	11	0.3	98.7	1.57	70	4.6	51	91	.
oyster toadfish	11	0.3	98.9	1.57	186	20.5	59	282	.
channel catfish	10	0.2	99.2	1.43	249	8.5	211	301	.
northern pipefish	9	0.2	99.4	1.29	137	9.3	105	202	.
northern scarobin	6	0.1	99.6	0.86	62	4.1	46	76	.
alewife	5	0.1	99.7	0.71	132	29.7	100	251	.
blueback herring	4	0.1	99.8	0.57	235	6.3	219	245	.
blue catfish	3	0.1	99.9	0.43	256	18.0	223	285	.
Atlantic croaker	2	0.0	99.9	0.29	147	125.5	21	272	.
summer flounder	1	0.0	99.9	0.14	234	.	234	234	.
American shad	1	0.0	100.0	0.14	119	.	119	119	.
skilletfish	1	0.0	100.0	0.14	22	.	22	22	.
pipefish	1	0.0	100.0	0.14	210	.	210	210	.
All Species Combined	4,066								

Table 44.

Month - April									
River - York									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 20									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	1,490	48.4	48.4	186.25	96	0.5	35	168	.
bay anchovy	1,034	33.6	82.0	129.25	47	0.3	26	87	.
spotted hake	269	8.7	90.8	33.63	83	1.3	52	161	.
blackcheek tonguefish	84	2.7	93.5	10.50	68	1.5	37	97	.
American eel	34	1.1	94.6	4.25	311	9.3	241	536	.
white perch	31	1.0	95.6	3.88	129	9.4	19	196	.
white catfish	26	0.8	96.5	3.25	217	17.8	112	365	.
blue crab, juvenile female	25	0.8	97.3	3.13	22	1.5	11	39	.
blue crab, male	23	0.7	98.0	2.88	40	5.8	12	95	.
oyster toadfish	21	0.7	98.7	2.63	181	13.7	51	270	.
Atlantic croaker	15	0.5	99.2	1.88	98	21.1	29	275	.
northern searobin	8	0.3	99.4	1.00	60	5.0	44	85	.
naked goby	4	0.1	99.6	0.50	35	1.7	30	38	.
spot	3	0.1	99.7	0.38	20	3.3	17	27	.
Atlantic menhaden	3	0.1	99.8	0.38	31	1.9	29	35	.
striped cusk-eel	3	0.1	99.9	0.38	163	22.3	119	189	.
summer flounder	1	0.0	99.9	0.13	32	.	32	32	.
alewife	1	0.0	99.9	0.13	104	.	104	104	.
channel catfish	1	0.0	100.0	0.13	249	.	249	249	.
northern pipefish	1	0.0	100.0	0.13	108	.	108	108	.
All Species Combined	3,077								

Table 45.

Month - April									
River - All - Pooled									
No. of Fish Trawls Made - 24									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 32									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	5,434	42.9	42.9	226.42	84	0.3	24	192	.
bay anchovy	3,888	30.7	73.6	162.00	52	0.2	26	87	.
spotted hake	1,729	13.6	87.2	72.04	108	0.8	52	196	.
American eel	478	3.8	91.0	19.92	250	2.8	102	566	.
blackcheek tonguefish	229	1.8	92.8	9.54	72	1.1	37	159	.
white perch	172	1.4	94.1	7.17	140	2.9	19	231	.
blue crab, male	109	0.9	95.0	4.54	65	4.0	9	173	.
Atlantic menhaden	107	0.8	95.8	4.46	119	3.9	25	254	.
white catfish	102	0.8	96.6	4.25	213	6.6	82	420	.
Atlantic croaker	96	0.8	97.4	4.00	92	5.0	21	275	.
channel catfish	85	0.7	98.1	3.54	228	6.4	112	490	.
blue crab, juvenile female	76	0.6	98.7	3.17	42	3.5	11	122	.
spot	54	0.4	99.1	2.25	36	5.4	16	143	.
oyster toadfish	39	0.3	99.4	1.63	180	9.7	51	282	.
northern searobin	17	0.1	99.5	0.71	62	3.4	44	92	.
northern pipefish	13	0.1	99.6	0.54	141	9.3	105	216	.
summer flounder	7	0.1	99.7	0.29	141	40.7	22	245	.
alewife	7	0.1	99.7	0.29	145	27.1	100	251	.
striped cusk-eel	6	0.0	99.8	0.25	137	22.3	75	189	.
naked goby	5	0.0	99.8	0.21	34	1.6	30	38	.
blueback herring	4	0.0	99.9	0.17	235	6.3	219	245	.
windowpane	3	0.0	99.9	0.13	88	10.8	68	105	.
blue catfish	3	0.0	99.9	0.13	256	18.0	223	285	.
black seabass	2	0.0	99.9	0.08	59	8.0	51	67	.
weakfish	2	0.0	99.9	0.08	164	6.5	157	170	.
American shad	1	0.0	100.0	0.04	119	.	119	119	.
striped bass	1	0.0	100.0	0.04	292	.	292	292	.
longnose gar	1	0.0	100.0	0.04	372	.	372	372	.
marginated madtom	1	0.0	100.0	0.04	172	.	172	172	.
feather blenny	1	0.0	100.0	0.04	73	.	73	73	.
skilletfish	1	0.0	100.0	0.04	22	.	22	22	.
pipefish	1	0.0	100.0	0.04	210	.	210	210	.
All Species Combined	12,674								

Table 46.

Month - May
 River - James
 No. of Fish Trawls Made - 13
 No. of Add'l Crab Trawls Made - 0
 No. of Species - 32

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	4,841	64.7	64.7	372.38	59	0.3	24	150	.
bay anchovy	761	10.2	74.8	58.54	53	0.3	34	87	.
blackcheek tonguefish	429	5.7	80.6	33.00	86	0.7	53	158	.
Atlantic croaker	305	4.1	84.6	23.46	174	3.6	51	267	.
blue crab, male	263	3.5	88.2	20.23	57	1.9	17	142	.
blue crab, juvenile female	245	3.3	91.4	18.85	49	1.3	15	128	.
channel catfish	161	2.2	93.6	12.38	199	4.8	42	494	.
weakfish	112	1.5	95.1	8.62	161	1.5	93	220	.
spot	85	1.1	96.2	6.54	84	7.6	19	210	.
American eel	85	1.1	97.4	6.54	264	6.0	137	535	.
spotted hake	56	0.7	98.1	4.31	151	4.0	107	237	.
striped cusk-eel	30	0.4	98.5	2.31	153	8.1	76	221	.
Atlantic menhaden	23	0.3	98.8	1.77	95	8.7	29	172	.
white perch	21	0.3	99.1	1.62	137	6.5	90	190	.
white catfish	18	0.2	99.3	1.38	189	15.8	106	321	.
oyster toadfish	17	0.2	99.6	1.31	186	14.9	106	305	.
black seabass	8	0.1	99.7	0.62	79	5.4	64	103	.
northern searobin	4	0.1	99.7	0.31	71	5.0	62	85	.
blue catfish	3	0.0	99.8	0.23	203	6.9	189	211	.
blue crab, adult female	3	0.0	99.8	0.23	144	2.2	141	148	.
windowpane	2	0.0	99.8	0.15	93	14.5	78	107	.
naked goby	2	0.0	99.9	0.15	41	8.0	33	49	.
conger eel	2	0.0	99.9	0.15	388	19.5	368	407	.
summer flounder	1	0.0	99.9	0.08	343	.	343	343	.
striped bass	1	0.0	99.9	0.08	141	.	141	141	.
common carp	1	0.0	99.9	0.08	457	.	457	457	.
striped searobin	1	0.0	99.9	0.08	87	.	87	87	.
longnose gar	1	0.0	99.9	0.08	878	.	878	878	.
northern pipefish	1	0.0	100.0	0.08	147	.	147	147	.
feather blenny	1	0.0	100.0	0.08	103	.	103	103	.
silver perch	1	0.0	100.0	0.08	151	.	151	151	.
smallmouth flounder	1	0.0	100.0	0.08	56	.	56	56	.
All Species Combined	7,485								

Table 47.

Month - May
 River - Rappahannock
 No. of Fish Trawls Made - 12
 No. of Add'l Crab Trawls Made - 0
 No. of Species - 21

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	2,759	46.1	46.1	229.92	54	0.2	27	85	.
hogchoker	1,555	26.0	72.1	129.58	76	0.6	32	164	.
spot	528	8.8	80.9	44.00	70	2.4	20	204	.
American eel	265	4.4	85.3	22.08	270	3.5	131	630	.
weakfish	262	4.4	89.7	21.83	170	1.2	136	275	.
white catfish	119	2.0	91.7	9.92	223	2.7	151	288	.
Atlantic croaker	97	1.6	93.3	8.08	150	9.7	23	313	.
Atlantic menhaden	85	1.4	94.7	7.08	40	3.8	28	288	.
white perch	77	1.3	96.0	6.42	168	2.7	122	232	.
spotted hake	68	1.1	97.2	5.67	139	2.2	97	198	.
blue crab, male	68	1.1	98.3	5.67	61	4.1	15	125	.
blue crab, juvenile female	58	1.0	99.3	4.83	49	3.6	16	129	.
channel catfish	20	0.3	99.6	1.67	253	11.1	195	355	.
oyster toadfish	10	0.2	99.8	0.83	182	16.8	59	256	.
blackcheek tonguefish	7	0.1	99.9	0.58	75	4.6	60	95	.
summer flounder	2	0.0	99.9	0.17	153	81.0	72	234	.
butterfish	1	0.0	99.9	0.08	67	.	67	67	.
blueback herring	1	0.0	99.9	0.08	252	.	252	252	.
northern puffer	1	0.0	100.0	0.08	154	.	154	154	.
northern searobin	1	0.0	100.0	0.08	67	.	67	67	.
northern pipefish	1	0.0	100.0	0.08	130	.	130	130	.
All Species Combined	5,985								

Table 48.

Month - May									
River - York									
No. of Fish Trawls Made - 12									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 21									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	1,254	31.0	31.0	104.50	95	0.9	28	187	.
bay anchovy	794	19.6	50.6	66.17	60	0.4	31	95	.
Atlantic croaker	526	13.0	63.6	43.83	149	3.7	29	296	.
Atlantic menhaden	447	11.0	74.6	37.25	41	0.7	29	229	.
spotted hake	300	7.4	82.0	25.00	142	1.1	102	237	.
blackcheek tonguefish	132	3.3	85.3	11.00	71	1.1	49	128	.
weakfish	130	3.2	88.5	10.83	178	2.6	102	289	.
white perch	87	2.1	90.6	7.25	181	3.4	90	263	.
blue crab, male	79	2.0	92.6	6.58	73	3.9	24	146	.
white catfish	78	1.9	94.5	6.50	239	9.5	118	393	.
spot	74	1.8	96.3	6.17	105	8.3	19	204	.
American eel	45	1.1	97.4	3.75	309	15.6	161	720	.
blue crab, juvenile female	44	1.1	98.5	3.67	46	3.7	12	107	.
oyster toadfish	39	1.0	99.5	3.25	198	9.3	76	308	.
striped cusk-eel	12	0.3	99.8	1.00	135	14.4	74	228	.
northern stargazer	4	0.1	99.9	0.33	72	3.3	62	77	.
summer flounder	1	0.0	99.9	0.08	71	.	71	108	.
northern puffer	1	0.0	99.9	0.08	108	.	108	108	.
northern pipefish	1	0.0	100.0	0.08	164	.	164	164	.
conger eel	1	0.0	100.0	0.08	373	.	373	373	.
blue crab, adult female	1	0.0	100.0	0.08	97	.	97	97	.
All Species Combined	4,050								

Table 49.

Month - May									
River - All - Pooled									
No. of Fish Trawls Made - 37									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 36									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	7,650	43.7	43.7	206.76	68	0.3	24	187	.
bay anchovy	4,314	24.6	68.3	116.59	55	0.2	27	95	.
Atlantic croaker	928	5.3	73.6	25.08	157	2.7	23	313	.
spot	687	3.9	77.5	18.57	76	2.3	19	210	.
blackcheek tonguefish	568	3.2	80.7	15.35	82	0.7	49	158	.
Atlantic menhaden	555	3.2	83.9	15.00	43	1.0	28	288	.
weakfish	504	2.9	86.8	13.62	170	1.0	93	289	.
spotted hake	424	2.4	89.2	11.46	143	1.0	97	237	.
blue crab, male	410	2.3	91.6	11.08	61	1.6	15	146	.
American eel	395	2.3	93.8	10.68	273	3.3	131	720	.
blue crab, juvenile female	347	2.0	95.8	9.38	48	1.2	12	129	.
white catfish	215	1.2	97.0	5.81	226	4.1	106	393	.
white perch	185	1.1	98.1	5.00	171	2.3	90	263	.
channel catfish	181	1.0	99.1	4.89	205	4.6	42	494	.
oyster toadfish	66	0.4	99.5	1.78	192	7.1	59	308	.
striped cusk-eel	42	0.2	99.7	1.14	148	7.1	74	228	.
black seabass	8	0.0	99.8	0.22	79	5.4	64	103	.
northern searobin	5	0.0	99.8	0.14	70	4.0	62	85	.
summer flounder	4	0.0	99.8	0.11	180	66.5	71	343	.
northern stargazer	4	0.0	99.8	0.11	72	3.3	62	77	.
blue crab, adult female	4	0.0	99.9	0.11	132	11.8	97	148	.
northern pipefish	3	0.0	99.9	0.08	147	9.8	130	164	.
conger eel	3	0.0	99.9	0.08	383	12.3	368	407	.
blue catfish	3	0.0	99.9	0.08	203	6.9	189	211	.
northern puffer	2	0.0	99.9	0.05	131	23.0	108	154	.
windowpane	2	0.0	99.9	0.05	93	14.5	78	107	.
naked goby	2	0.0	99.9	0.05	41	8.0	33	49	.
butterfish	1	0.0	100.0	0.03	67	.	67	67	.
blueback herring	1	0.0	100.0	0.03	252	.	252	252	.
striped bass	1	0.0	100.0	0.03	141	.	141	141	.
common carp	1	0.0	100.0	0.03	457	.	457	457	.
striped searobin	1	0.0	100.0	0.03	87	.	87	87	.
longnose gar	1	0.0	100.0	0.03	878	.	878	878	.
feather blenny	1	0.0	100.0	0.03	103	.	103	103	.
silver perch	1	0.0	100.0	0.03	151	.	151	151	.
smallmouth flounder	1	0.0	100.0	0.03	56	.	56	56	.
All Species Combined	17,520								

Table 50.

Month - June
River - James
No. of Fish Trawls Made - 13
No. of Add'l Crab Trawls Made - 0
No. of Species - 25

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	1,846	29.0	29.0	142.00	57	0.3	31	138	.
bay anchovy	1,471	23.1	52.2	113.15	60	0.2	41	94	.
spot	1,382	21.7	73.9	106.31	90	0.7	50	210	.
Atlantic croaker	529	8.3	82.2	40.69	150	1.6	72	285	.
blue crab, male	174	2.7	85.0	13.38	95	2.8	25	166	.
blackcheek tonguefish	172	2.7	87.7	13.23	102	0.9	72	125	.
weakfish	152	2.4	90.1	11.69	168	1.7	64	240	.
northern searobin	132	2.1	92.1	10.15	87	1.3	49	126	.
blue crab, juvenile female	85	1.3	93.5	6.54	64	2.2	26	128	.
blue crab, adult female	64	1.0	94.5	4.92	148	1.7	114	175	.
Atlantic menhaden	61	1.0	95.4	4.69	48	5.5	20	189	.
black seabass	54	0.8	96.3	4.15	106	2.7	65	148	.
channel catfish	47	0.7	97.0	3.62	239	6.0	181	391	.
striped cusk-eel	45	0.7	97.7	3.46	120	2.1	91	160	.
summer flounder	32	0.5	98.2	2.46	136	7.6	73	262	.
white perch	29	0.5	98.7	2.23	96	10.1	29	185	.
American eel	23	0.4	99.1	1.77	287	7.7	220	351	.
white catfish	11	0.2	99.2	0.85	137	29.1	20	348	.
common carp	10	0.2	99.4	0.77	393	19.2	262	482	.
windowpane	9	0.1	99.5	0.69	117	5.8	90	142	.
northern pipefish	9	0.1	99.7	0.69	190	8.8	160	240	.
smallmouth flounder	7	0.1	99.8	0.54	93	2.4	83	101	.
oyster toadfish	6	0.1	99.9	0.46	128	21.0	67	201	.
northern kingfish	4	0.1	99.9	0.31	172	30.0	83	216	.
striped searobin	4	0.1	100.0	0.31	147	23.4	102	212	.
All Species Combined	6,358								

Table 51.

Month - June
River - Rappahannock
No. of Fish Trawls Made - 10
No. of Add'l Crab Trawls Made - 0
No. of Species - 17

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	597	37.0	37.0	59.70	56	0.6	29	113	.
spot	198	12.3	49.2	19.80	97	1.5	45	183	.
American eel	166	10.3	59.5	16.60	282	3.5	169	525	.
Atlantic menhaden	122	7.6	67.1	12.20	51	2.3	32	241	.
blue crab, male	119	7.4	74.4	11.90	77	3.9	22	160	.
bay anchovy	109	6.7	81.2	10.90	55	0.9	42	79	.
white catfish	102	6.3	87.5	10.20	187	3.3	104	290	.
blue crab, juvenile female	90	5.6	93.1	9.00	49	1.9	20	114	.
white perch	41	2.5	95.6	4.10	143	2.2	120	175	.
weakfish	33	2.0	97.6	3.30	178	3.5	142	227	.
blue crab, adult female	21	1.3	98.9	2.10	149	2.6	127	168	.
channel catfish	8	0.5	99.4	0.80	270	13.7	216	333	.
oyster toadfish	4	0.2	99.7	0.40	76	3.2	71	82	.
blackcheek tonguefish	2	0.1	99.8	0.20	97	1.0	96	98	.
summer flounder	1	0.1	99.9	0.10	121	.	121	121	.
alewife	1	0.1	99.9	0.10	42	.	42	42	.
spotted hake	1	0.1	100.0	0.10	147	.	147	147	.
All Species Combined	1,615								

Table 52.

Month - June									
River - York									
No. of Fish Trawls Made - 12									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 22									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	2,256	36.3	36.3	188.00	63	0.2	37	91	.
Atlantic croaker	1,267	20.4	56.8	105.58	133	1.3	72	349	.
hogchoker	933	15.0	71.8	77.75	89	1.2	28	180	.
spot	451	7.3	79.1	37.58	140	3.5	27	300	.
weakfish	335	5.4	84.5	27.92	192	1.0	140	248	.
blue crab, male	244	3.9	88.4	20.33	84	2.2	20	175	.
blue crab, juvenile female	192	3.1	91.5	16.00	65	1.3	21	120	.
blackcheek tonguefish	185	3.0	94.5	15.42	94	1.0	58	125	.
American eel	78	1.3	95.7	6.50	287	8.6	179	670	.
white perch	60	1.0	96.7	5.00	52	5.4	28	191	.
summer flounder	55	0.9	97.6	4.58	122	4.2	75	327	.
blue crab, adult female	47	0.8	98.3	3.92	148	2.0	118	176	.
oyster toadfish	33	0.5	98.9	2.75	179	13.0	71	290	.
white catfish	28	0.5	99.3	2.33	242	18.2	114	403	.
striped cusk-eel	21	0.3	99.6	1.75	137	6.3	105	208	.
spotted hake	9	0.1	99.8	0.75	170	5.1	151	195	.
Atlantic menhaden	5	0.1	99.9	0.42	66	5.0	58	85	.
striped bass	4	0.1	99.9	0.33	47	9.1	32	73	.
striped searobin	1	0.0	100.0	0.08	152	.	152	152	.
longnose gar	1	0.0	100.0	0.08	751	.	751	751	.
Atlantic silverside	1	0.0	100.0	0.08	32	.	32	32	.
northern stargazer	1	0.0	100.0	0.08	82	.	82	82	.
All Species Combined	6,207								

Table 53.

Month - June									
River - All - Pooled									
No. of Fish Trawls Made - 35									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 31									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	3,836	27.1	27.1	109.60	62	0.1	37	94	.
hogchoker	3,376	23.8	50.9	96.46	66	0.4	28	180	.
spot	2,031	14.3	65.2	58.03	102	1.0	27	300	.
Atlantic croaker	1,796	12.7	77.8	51.31	138	1.1	72	349	.
blue crab, male	537	3.8	81.6	15.34	86	1.6	20	175	.
weakfish	520	3.7	85.3	14.86	184	1.0	64	248	.
blue crab, juvenile female	367	2.6	87.9	10.49	61	1.0	20	128	.
blackcheek tonguefish	359	2.5	90.4	10.26	98	0.7	58	125	.
American eel	267	1.9	92.3	7.63	284	3.4	169	670	.
Atlantic menhaden	188	1.3	93.6	5.37	50	2.4	20	241	.
white catfish	141	1.0	94.6	4.03	194	5.3	20	403	.
northern searobin	132	0.9	95.6	3.77	87	1.3	49	126	.
blue crab, adult female	132	0.9	96.5	3.77	148	1.1	114	176	.
white perch	130	0.9	97.4	3.71	91	4.9	28	191	.
summer flounder	88	0.6	98.0	2.51	127	3.8	73	327	.
striped cusk-eel	66	0.5	98.5	1.89	125	2.6	91	208	.
channel catfish	55	0.4	98.9	1.57	244	5.6	181	391	.
black seabass	54	0.4	99.3	1.54	106	2.7	65	148	.
oyster toadfish	43	0.3	99.6	1.23	164	11.5	67	290	.
common carp	10	0.1	99.6	0.29	393	19.2	262	482	.
spotted hake	10	0.1	99.7	0.29	168	5.1	147	195	.
windowpane	9	0.1	99.8	0.26	117	5.8	90	142	.
northern pipefish	9	0.1	99.8	0.26	190	8.8	160	240	.
smallmouth flounder	7	0.0	99.9	0.20	93	2.4	83	101	.
striped searobin	5	0.0	99.9	0.14	148	18.2	102	212	.
striped bass	4	0.0	99.9	0.11	47	9.1	32	73	.
northern kingfish	4	0.0	100.0	0.11	172	30.0	83	216	.
alewife	1	0.0	100.0	0.03	42	.	42	42	.
longnose gar	1	0.0	100.0	0.03	751	.	751	751	.
Atlantic silverside	1	0.0	100.0	0.03	32	.	32	32	.
northern stargazer	1	0.0	100.0	0.03	82	.	82	82	.
All Species Combined	14,180								

Table 54.

Month - July
 River - James
 No. of Fish Trawls Made - 13
 No. of Add'l Crab Trawls Made - 0
 No. of Species - 31

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	1,302	34.2	34.2	100.15	44	0.4	18	82	.
hogchoker	1,217	32.0	66.2	93.62	64	0.3	44	161	.
spot	597	15.7	81.8	45.92	109	0.7	72	175	.
blue crab, male	126	3.3	85.2	9.69	104	2.8	36	165	.
Atlantic croaker	77	2.0	87.2	5.92	166	3.9	105	346	.
blue crab, juvenile female	72	1.9	89.1	5.54	79	2.5	41	123	.
weakfish	71	1.9	90.9	5.46	128	9.2	23	242	.
channel catfish	56	1.5	92.4	4.31	170	12.4	23	284	.
white catfish	54	1.4	93.8	4.15	170	5.5	21	259	.
blackcheek tonguefish	51	1.3	95.2	3.92	107	2.9	15	136	.
American eel	35	0.9	96.1	2.69	239	8.9	146	342	.
summer flounder	31	0.8	96.9	2.38	188	15.5	123	520	.
blue crab, adult female	22	0.6	97.5	1.69	138	2.7	112	159	.
white perch	20	0.5	98.0	1.54	68	7.6	40	143	.
black seabass	12	0.3	98.3	0.92	121	5.2	96	145	.
oyster toadfish	11	0.3	98.6	0.85	150	12.1	78	214	.
northern searobin	8	0.2	98.8	0.62	117	14.3	55	190	.
striped anchovy	7	0.2	99.0	0.54	57	2.4	49	67	.
northern pipefish	7	0.2	99.2	0.54	196	19.0	100	255	.
Atlantic menhaden	6	0.2	99.3	0.46	133	11.4	104	184	.
naked goby	5	0.1	99.5	0.38	25	2.1	20	30	.
northern kingfish	4	0.1	99.6	0.31	48	11.1	32	80	.
windowpane	4	0.1	99.7	0.31	136	7.5	116	150	.
butterfish	3	0.1	99.8	0.23	51	9.8	34	68	.
marginated madtom	3	0.1	99.8	0.23	153	2.4	148	156	.
harvestfish	1	0.0	99.9	0.08	63	.	63	63	.
alewife	1	0.0	99.9	0.08	222	.	222	222	.
striped bass	1	0.0	99.9	0.08	200	.	200	200	.
northern puffer	1	0.0	99.9	0.08	68	.	68	68	.
striped searobin	1	0.0	100.0	0.08	194	.	194	194	.
feather blenny	1	0.0	100.0	0.08	86	.	86	86	.
All Species Combined	3,807								

Table 55.

Month - July
 River - Rappahannock
 No. of Fish Trawls Made - 12
 No. of Add'l Crab Trawls Made - 0
 No. of Species - 17

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	1,907	51.0	51.0	158.92	81	0.4	45	156	.
spot	981	26.2	77.2	81.75	107	0.5	20	185	.
blue crab, juvenile female	313	8.4	85.6	26.08	74	1.3	30	130	.
blue crab, male	204	5.5	91.1	17.00	81	1.9	24	162	.
weakfish	119	3.2	94.2	9.92	92	7.9	20	298	.
American eel	92	2.5	96.7	7.67	279	6.7	90	565	.
bay anchovy	69	1.8	98.6	5.75	44	1.8	22	75	.
blue crab, adult female	18	0.5	99.0	1.50	145	2.5	125	164	.
Atlantic menhaden	9	0.2	99.3	0.75	104	17.2	60	204	.
white perch	8	0.2	99.5	0.67	168	9.3	144	227	.
blackcheek tonguefish	6	0.2	99.7	0.50	117	3.5	103	128	.
Atlantic croaker	4	0.1	99.8	0.33	190	5.4	181	205	.
harvestfish	3	0.1	99.8	0.25	48	14.0	20	65	.
northern kingfish	2	0.1	99.9	0.17	53	17.0	36	70	.
oyster toadfish	2	0.1	99.9	0.17	74	32.0	42	106	.
summer flounder	1	0.0	100.0	0.08	123	.	123	123	.
white catfish	1	0.0	100.0	0.08	218	.	218	218	.
All Species Combined	3,739								

Table 56.

Month - July
River - York
No. of Fish Trawls Made - 12
No. of Add'l Crab Trawls Made - 0
No. of Species - 21

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	1,050	40.8	40.8	87.50	91	1.0	32	175	.
Atlantic croaker	549	21.4	62.2	45.75	157	1.1	38	288	.
bay anchovy	235	9.1	71.3	19.58	56	1.0	22	85	.
spot	159	6.2	77.5	13.25	114	1.9	77	221	.
weakfish	152	5.9	83.4	12.67	74	6.1	24	271	.
blue crab, male	118	4.6	88.0	9.83	87	2.6	27	176	.
blackcheek tonguefish	109	4.2	92.3	9.08	112	0.8	92	132	.
blue crab, juvenile female	68	2.6	94.9	5.67	81	2.5	38	114	.
oyster toadfish	36	1.4	96.3	3.00	198	10.2	94	326	.
summer flounder	35	1.4	97.7	2.92	159	6.0	116	290	.
Atlantic menhaden	16	0.6	98.3	1.33	91	11.5	23	216	.
white catfish	14	0.5	98.8	1.17	191	12.9	145	316	.
blue crab, adult female	10	0.4	99.2	0.83	140	3.7	118	156	.
American eel	8	0.3	99.5	0.67	282	16.1	210	322	.
white perch	3	0.1	99.6	0.25	207	3.7	202	214	.
butterfish	2	0.1	99.7	0.17	80	14.0	66	94	.
harvestfish	2	0.1	99.8	0.17	39	19.0	20	58	.
silver perch	2	0.1	99.9	0.17	164	2.0	162	166	.
northern kingfish	1	0.0	99.9	0.08	32	.	32	32	.
northern scarobin	1	0.0	100.0	0.08	130	.	130	130	.
striped cusk-eel	1	0.0	100.0	0.08	172	.	172	172	.
All Species Combined	2,571								

Table 57.

Month - July
River - All - Pooled
No. of Fish Trawls Made - 37
No. of Add'l Crab Trawls Made - 0
No. of Species - 33

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	4,174	41.3	41.3	112.81	79	0.3	32	175	.
spot	1,737	17.2	58.4	46.95	108	0.4	20	221	.
bay anchovy	1,606	15.9	74.3	43.41	46	0.4	18	85	.
Atlantic croaker	630	6.2	80.5	17.03	158	1.1	38	346	.
blue crab, juvenile female	453	4.5	85.0	12.24	76	1.0	30	130	.
blue crab, male	448	4.4	89.4	12.11	89	1.4	24	176	.
weakfish	342	3.4	92.8	9.24	92	4.4	20	298	.
blackcheek tonguefish	166	1.6	94.5	4.49	111	1.1	15	136	.
American eel	135	1.3	95.8	3.65	269	5.4	90	565	.
white catfish	69	0.7	96.5	1.86	175	5.2	21	316	.
summer flounder	67	0.7	97.1	1.81	172	8.0	116	520	.
channel catfish	56	0.6	97.7	1.51	170	12.4	23	284	.
blue crab, adult female	50	0.5	98.2	1.35	141	1.7	112	164	.
oyster toadfish	49	0.5	98.7	1.32	182	9.1	42	326	.
white perch	31	0.3	99.0	0.84	107	11.2	40	227	.
Atlantic menhaden	31	0.3	99.3	0.84	103	8.3	23	216	.
black seabass	12	0.1	99.4	0.32	121	5.2	96	145	.
northern scarobin	9	0.1	99.5	0.24	118	12.7	55	190	.
northern kingfish	7	0.1	99.6	0.19	47	7.5	32	80	.
striped anchovy	7	0.1	99.6	0.19	57	2.4	49	67	.
northern pipetfish	7	0.1	99.7	0.19	196	19.0	100	255	.
harvestfish	6	0.1	99.8	0.16	47	8.7	20	65	.
butterfish	5	0.0	99.8	0.14	63	9.9	34	94	.
naked goby	5	0.0	99.9	0.14	25	2.1	20	30	.
windowpane	4	0.0	99.9	0.11	136	7.5	116	150	.
marginated madtom	3	0.0	99.9	0.08	153	2.4	148	156	.
silver perch	2	0.0	99.9	0.05	164	2.0	162	166	.
alewife	1	0.0	100.0	0.03	222	.	222	222	.
striped bass	1	0.0	100.0	0.03	200	.	200	200	.
northern puffer	1	0.0	100.0	0.03	68	.	68	68	.
striped scarobin	1	0.0	100.0	0.03	194	.	194	194	.
feather blenny	1	0.0	100.0	0.03	86	.	86	86	.
striped cusk-eel	1	0.0	100.0	0.03	172	.	172	172	.
All Species Combined	10,117								

Table 58.

Month - August									
River - James									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 34									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	5,459	49.1	49.1	419.92	28	0.2	13	74	.
hogchoker	3,431	30.8	79.9	263.92	67	0.3	15	186	.
weakfish	657	5.9	85.8	50.54	61	1.2	24	257	.
spot	540	4.9	90.7	41.54	117	0.9	87	231	.
blue crab, male	139	1.2	91.9	10.69	108	2.9	26	176	.
blackcheek tonguefish	137	1.2	93.2	10.54	121	1.1	62	177	.
blue crab, juvenile female	118	1.1	94.2	9.08	88	2.6	20	125	.
oyster toadfish	112	1.0	95.2	8.62	182	6.3	28	331	.
blue crab, adult female	108	1.0	96.2	8.31	149	1.1	121	172	.
American eel	81	0.7	96.9	6.23	263	5.5	157	426	.
northern kingfish	72	0.6	97.6	5.54	39	1.5	20	76	.
summer flounder	47	0.4	98.0	3.62	198	8.8	105	438	.
harvestfish	43	0.4	98.4	3.31	33	1.7	16	75	.
Atlantic croaker	40	0.4	98.8	3.08	167	4.0	122	241	.
channel catfish	37	0.3	99.1	2.85	224	12.8	72	405	.
white catfish	25	0.2	99.3	1.92	192	11.5	63	288	.
black seabass	20	0.2	99.5	1.54	148	5.1	116	204	.
windowpane	14	0.1	99.6	1.08	159	4.7	121	181	.
white perch	13	0.1	99.7	1.00	126	13.7	60	224	.
Atlantic spadefish	5	0.0	99.8	0.38	30	1.0	26	32	.
silver perch	5	0.0	99.8	0.38	41	7.9	25	64	.
naked goby	4	0.0	99.9	0.31	30	3.0	22	36	.
Atlantic menhaden	2	0.0	99.9	0.15	200	7.5	192	207	.
northern scarobin	2	0.0	99.9	0.15	146	15.0	131	161	.
lined seahorse	2	0.0	99.9	0.15	50	7.5	42	57	.
northern pipefish	2	0.0	99.9	0.15	90	18.0	72	108	.
striped bass	1	0.0	99.9	0.08	235	.	235	235	.
gizzard shad	1	0.0	99.9	0.08	255	.	255	255	.
common carp	1	0.0	100.0	0.08	415	.	415	415	.
southern kingfish	1	0.0	100.0	0.08	45	.	45	45	.
pigfish	1	0.0	100.0	0.08	104	.	104	104	.
tessellated darter	1	0.0	100.0	0.08	43	.	43	43	.
striped anchovy	1	0.0	100.0	0.08	111	.	111	111	.
smallmouth flounder	1	0.0	100.0	0.08	81	.	81	81	.
All Species Combined	11,123								

Table 59.

Month - August									
River - Rappahannock									
No. of Fish Trawls Made - 12									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 18									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	1,413	54.1	54.1	117.75	84	0.4	28	167	.
bay anchovy	323	12.4	66.5	26.92	37	0.3	22	64	.
weakfish	240	9.2	75.7	20.00	70	4.4	20	318	.
spot	236	9.0	84.7	19.67	144	1.3	96	197	.
blue crab, male	151	5.8	90.5	12.58	109	2.6	22	171	.
blue crab, juvenile female	93	3.6	94.1	7.75	90	2.5	12	127	.
blue crab, adult female	58	2.2	96.3	4.83	152	1.6	112	175	.
harvestfish	31	1.2	97.5	2.58	34	3.3	14	80	.
northern kingfish	30	1.1	98.6	2.50	44	2.2	27	77	.
American eel	10	0.4	99.0	0.83	355	24.2	242	489	.
Atlantic menhaden	7	0.3	99.3	0.58	150	12.8	90	192	.
oyster toadfish	7	0.3	99.5	0.58	146	31.8	87	309	.
white perch	3	0.1	99.7	0.25	152	7.8	142	167	.
blackcheek tonguefish	3	0.1	99.8	0.25	129	7.6	117	143	.
summer flounder	2	0.1	99.8	0.17	191	10.0	181	201	.
Atlantic croaker	2	0.1	99.9	0.17	205	10.0	195	215	.
Atlantic spadefish	1	0.0	100.0	0.08	28	.	28	28	.
naked goby	1	0.0	100.0	0.08	30	.	30	30	.
All Species Combined	2,611								

Table 60.

Month - August
River - York
No. of Fish Trawls Made - 12
No. of Add'l Crab Trawls Made - 0
No. of Species - 25

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
weakfish	2,359	48.0	48.0	196.58	51	0.5	19	266	.
hogchoker	1,216	24.7	72.7	101.33	79	0.8	27	178	.
spot	273	5.6	78.2	22.75	127	1.3	18	204	.
northern kingfish	233	4.7	83.0	19.42	51	1.2	22	103	.
bay anchovy	226	4.6	87.6	18.83	42	1.0	18	89	.
Atlantic croaker	139	2.8	90.4	11.58	149	5.1	42	269	.
blackcheek tonguefish	120	2.4	92.8	10.00	121	0.7	96	141	.
blue crab, male	119	2.4	95.3	9.92	102	3.4	17	165	.
blue crab, juvenile female	55	1.1	96.4	4.58	85	4.4	15	129	.
harvestfish	48	1.0	97.4	4.00	46	3.7	18	169	.
summer flounder	32	0.7	98.0	2.67	167	3.0	124	210	.
blue crab, adult female	31	0.6	98.6	2.58	147	2.2	104	166	.
white catfish	25	0.5	99.1	2.08	260	13.8	134	390	.
American eel	11	0.2	99.4	0.92	317	31.6	185	585	.
oyster toadfish	9	0.2	99.6	0.75	243	24.4	58	296	.
silver perch	5	0.1	99.7	0.42	82	15.8	32	121	.
silver hake	4	0.1	99.7	0.33	57	9.1	41	79	.
striped anchovy	4	0.1	99.8	0.33	81	3.3	72	87	.
Atlantic spadefish	3	0.1	99.9	0.25	44	16.0	28	76	.
black seabass	1	0.0	99.9	0.08	171	.	171	171	.
cobia	1	0.0	99.9	0.08	179	.	179	179	.
spotted seatrout	1	0.0	99.9	0.08	121	.	121	121	.
naked goby	1	0.0	100.0	0.08	38	.	38	38	.
feather blenny	1	0.0	100.0	0.08	56	.	56	56	.
inshore lizardfish	1	0.0	100.0	0.08	162	.	162	162	.
All Species Combined	4,918								

Table 61.

Month - August
River - All - Pooled
No. of Fish Trawls Made - 37
No. of Add'l Crab Trawls Made - 0
No. of Species - 39

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	6,060	32.5	32.5	163.78	73	0.3	15	186	.
bay anchovy	6,008	32.2	64.7	162.38	30	0.2	13	89	.
weakfish	3,256	17.5	82.2	88.00	54	0.6	19	318	.
spot	1,049	5.6	87.8	28.35	126	0.7	18	231	.
blue crab, male	409	2.2	90.0	11.05	107	1.7	17	176	.
northern kingfish	335	1.8	91.8	9.05	48	0.9	20	103	.
blue crab, juvenile female	266	1.4	93.2	7.19	88	1.7	12	129	.
blackcheek tonguefish	260	1.4	94.6	7.03	121	0.7	62	177	.
blue crab, adult female	197	1.1	95.6	5.32	150	0.8	104	175	.
Atlantic croaker	181	1.0	96.6	4.89	153	4.1	42	269	.
oyster toadfish	128	0.7	97.3	3.46	184	6.2	28	331	.
harvestfish	122	0.7	98.0	3.30	38	1.9	14	169	.
American eel	102	0.5	98.5	2.76	278	6.6	157	585	.
summer flounder	81	0.4	98.9	2.19	186	5.5	105	438	.
white catfish	50	0.3	99.2	1.35	226	10.1	63	390	.
channel catfish	37	0.2	99.4	1.00	224	12.8	72	405	.
black seabass	21	0.1	99.5	0.57	149	5.0	116	204	.
white perch	16	0.1	99.6	0.43	130	11.4	60	224	.
windowpane	14	0.1	99.7	0.38	159	4.7	121	181	.
silver perch	10	0.1	99.7	0.27	61	10.7	25	121	.
Atlantic menhaden	9	0.0	99.8	0.24	161	12.2	90	207	.
Atlantic spadefish	9	0.0	99.8	0.24	34	5.2	26	76	.
naked goby	6	0.0	99.9	0.16	31	2.3	22	38	.
striped anchovy	5	0.0	99.9	0.14	87	6.6	72	111	.
silver hake	4	0.0	99.9	0.11	57	9.1	41	79	.
northern searobin	2	0.0	99.9	0.05	146	15.0	131	161	.
lined seahorse	2	0.0	99.9	0.05	50	7.5	42	57	.
northern pipefish	2	0.0	99.9	0.05	90	18.0	72	108	.
striped bass	1	0.0	99.9	0.03	235	.	235	235	.
cobia	1	0.0	100.0	0.03	179	.	179	179	.
gizzard shad	1	0.0	100.0	0.03	255	.	255	255	.
common carp	1	0.0	100.0	0.03	415	.	415	415	.
southern kingfish	1	0.0	100.0	0.03	45	.	45	45	.
spotted seatrout	1	0.0	100.0	0.03	121	.	121	121	.
pigfish	1	0.0	100.0	0.03	104	.	104	104	.
lescellated darter	1	0.0	100.0	0.03	43	.	43	43	.
feather blenny	1	0.0	100.0	0.03	56	.	56	56	.
inshore lizardfish	1	0.0	100.0	0.03	162	.	162	162	.
smallmouth flounder	1	0.0	100.0	0.03	81	.	81	81	.
All Species Combined	18,652								

Table 62.

Month - September									
River - James									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 33									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	4,524	50.8	50.8	348.00	41	0.1	20	79	.
hogchoker	2,500	28.1	78.9	192.31	80	0.2	32	151	.
spot	852	9.6	88.5	65.54	124	0.6	76	226	.
weakfish	328	3.7	92.2	25.23	120	2.7	28	333	.
blue crab, adult female	186	2.1	94.3	14.31	149	0.7	126	176	.
blue crab, male	108	1.2	95.5	8.31	81	5.4	12	168	.
blue crab, juvenile female	82	0.9	96.4	6.31	30	3.2	12	124	.
blackcheek tonguefish	66	0.7	97.1	5.08	127	1.9	51	157	.
oyster toadfish	50	0.6	97.7	3.85	192	8.1	54	316	.
Atlantic croaker	37	0.4	98.1	2.85	171	6.6	40	238	.
northern kingfish	36	0.4	98.5	2.77	96	2.8	68	140	.
summer flounder	26	0.3	98.8	2.00	196	7.3	155	334	.
Atlantic spadefish	20	0.2	99.0	1.54	78	2.6	56	97	.
black seabass	11	0.1	99.2	0.85	164	7.3	132	215	.
white perch	11	0.1	99.3	0.85	159	12.9	75	203	.
harvestfish	10	0.1	99.4	0.77	76	5.3	43	93	.
striped anchovy	8	0.1	99.5	0.62	104	3.3	87	118	.
silver perch	8	0.1	99.6	0.62	84	5.1	60	104	.
pigfish	6	0.1	99.6	0.46	133	1.8	129	141	.
white catfish	5	0.1	99.7	0.38	217	17.9	170	280	.
smallmouth flounder	5	0.1	99.8	0.38	89	2.4	82	94	.
inshore lizardfish	4	0.0	99.8	0.31	195	33.9	94	241	.
Atlantic menhaden	3	0.0	99.8	0.23	133	27.0	95	185	.
channel catfish	3	0.0	99.9	0.23	238	16.8	207	265	.
windowpane	3	0.0	99.9	0.23	174	1.7	172	177	.
American eel	2	0.0	99.9	0.15	288	22.0	266	310	.
northern puffer	1	0.0	99.9	0.08	162	.	162	162	.
spotted hake	1	0.0	99.9	0.08	215	.	215	215	.
northern pipefish	1	0.0	100.0	0.08	137	.	137	137	.
naked goby	1	0.0	100.0	0.08	31	.	31	31	.
feather blenny	1	0.0	100.0	0.08	91	.	91	91	.
skilletfish	1	0.0	100.0	0.08	24	.	24	24	.
Atlantic stingray	1	0.0	100.0	0.08	233	.	233	233	.
All Species Combined	8,901								

Table 63.

Month - September									
River - Rappahannock									
No. of Fish Trawls Made - 12									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 19									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
spot	2,469	43.6	43.6	205.75	128	0.4	89	230	.
bay anchovy	1,394	24.6	68.1	116.17	52	0.3	18	90	.
hogchoker	1,120	19.8	87.9	93.33	93	0.4	61	171	.
white perch	189	3.3	91.2	15.75	189	0.8	145	222	.
weakfish	134	2.4	93.6	11.17	206	6.8	38	368	.
blue crab, adult female	99	1.7	95.3	8.25	151	1.2	112	176	.
northern kingfish	78	1.4	96.7	6.50	83	2.2	33	117	.
blue crab, male	71	1.3	98.0	5.92	124	3.7	20	165	.
oyster toadfish	33	0.6	98.6	2.75	220	10.9	92	325	.
blackcheek tonguefish	22	0.4	98.9	1.83	121	7.6	48	154	.
blue crab, juvenile female	20	0.4	99.3	1.67	87	7.2	19	118	.
harvestfish	12	0.2	99.5	1.00	51	1.5	42	60	.
Atlantic menhaden	12	0.2	99.7	1.00	136	13.2	78	216	.
summer flounder	6	0.1	99.8	0.50	209	9.8	184	242	.
American eel	4	0.1	99.9	0.33	365	86.0	246	611	.
white catfish	2	0.0	99.9	0.17	230	7.5	222	237	.
Atlantic spadefish	2	0.0	100.0	0.17	73	4.5	68	77	.
striped anchovy	1	0.0	100.0	0.08	102	.	102	102	.
inshore lizardfish	1	0.0	100.0	0.08	223	.	223	223	.
All Species Combined	5,669								

Table 64.

Month - September									
River - York									
No. of Fish Trawls Made - 12									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 22									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	2,790	54.2	54.2	232.50	52	0.2	20	85	.
hogchoker	1,220	23.7	77.9	101.67	83	1.1	21	193	.
spot	444	8.6	86.6	37.00	140	1.0	106	262	.
weakfish	303	5.9	92.5	25.25	241	2.7	68	424	.
blackcheek tonguefish	87	1.7	94.1	7.25	111	4.0	39	180	.
oyster toadfish	75	1.5	95.6	6.25	235	6.0	62	328	.
northern kingfish	44	0.9	96.5	3.67	90	2.4	45	148	.
blue crab, male	37	0.7	97.2	3.08	81	9.5	14	183	.
silver perch	29	0.6	97.7	2.42	124	3.6	97	176	.
Atlantic croaker	27	0.5	98.3	2.25	201	9.0	21	245	.
summer flounder	19	0.4	98.6	1.58	212	9.1	141	324	.
white catfish	14	0.3	98.9	1.17	272	19.7	122	392	.
Atlantic spadefish	14	0.3	99.2	1.17	81	3.5	54	115	.
blue crab, juvenile female	10	0.2	99.4	0.83	37	10.0	19	103	.
harvestfish	8	0.2	99.5	0.67	78	3.5	57	88	.
American eel	8	0.2	99.7	0.67	215	19.0	135	300	.
white perch	5	0.1	99.8	0.42	164	14.0	124	203	.
blue crab, adult female	5	0.1	99.9	0.42	147	8.4	124	168	.
Atlantic menhaden	3	0.1	99.9	0.25	98	1.5	95	100	.
alewife	1	0.0	100.0	0.08	27	.	27	27	.
naked goby	1	0.0	100.0	0.08	34	.	34	34	.
inshore lizardfish	1	0.0	100.0	0.08	235	.	235	235	.
All Species Combined	5,145								

Table 65.

Month - September									
River - All - Pooled									
No. of Fish Trawls Made - 37									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 34									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	8,708	44.2	44.2	235.35	46	0.1	18	90	.
hogchoker	4,840	24.5	68.7	130.81	84	0.3	21	193	.
spot	3,765	19.1	87.8	101.76	129	0.3	76	262	.
weakfish	765	3.9	91.7	20.68	183	2.8	28	424	.
blue crab, adult female	290	1.5	93.2	7.84	149	0.6	112	176	.
blue crab, male	216	1.1	94.3	5.84	95	3.6	12	183	.
white perch	205	1.0	95.3	5.54	187	1.2	75	222	.
blackcheek tonguefish	175	0.9	96.2	4.73	118	2.4	39	180	.
northern kingfish	158	0.8	97.0	4.27	88	1.5	33	148	.
oyster toadfish	158	0.8	97.8	4.27	218	4.7	54	328	.
blue crab, juvenile female	112	0.6	98.4	3.03	41	3.4	12	124	.
Atlantic croaker	64	0.3	98.7	1.73	184	5.7	21	245	.
summer flounder	51	0.3	98.9	1.38	204	5.2	141	334	.
silver perch	37	0.2	99.1	1.00	116	4.1	60	176	.
Atlantic spadefish	36	0.2	99.3	0.97	79	2.0	54	115	.
harvestfish	30	0.2	99.5	0.81	67	3.1	42	93	.
white catfish	21	0.1	99.6	0.57	255	14.6	122	392	.
Atlantic menhaden	18	0.1	99.7	0.49	129	10.1	78	216	.
American eel	14	0.1	99.7	0.38	268	30.6	135	611	.
black seabass	11	0.1	99.8	0.30	164	7.3	132	215	.
striped anchovy	9	0.0	99.8	0.24	104	2.9	87	118	.
pigfish	6	0.0	99.9	0.16	133	1.8	129	141	.
inshore lizardfish	6	0.0	99.9	0.16	206	22.7	94	241	.
smallmouth flounder	5	0.0	99.9	0.14	89	2.4	82	94	.
channel catfish	3	0.0	99.9	0.08	238	16.8	207	265	.
windowpane	3	0.0	100.0	0.08	174	1.7	172	177	.
naked goby	2	0.0	100.0	0.05	33	1.5	31	34	.
alewife	1	0.0	100.0	0.03	27	.	27	27	.
northern puffer	1	0.0	100.0	0.03	162	.	162	162	.
spotted hake	1	0.0	100.0	0.03	215	.	215	215	.
northern pipefish	1	0.0	100.0	0.03	137	.	137	137	.
feather blenny	1	0.0	100.0	0.03	91	.	91	91	.
skilletfish	1	0.0	100.0	0.03	24	.	24	24	.
Atlantic stingray	1	0.0	100.0	0.03	233	.	233	233	.
All Species Combined	19,715								

Table 66.

Month - October

River - James

No. of Fish Trawls Made - 13

No. of Add'l Crab Trawls Made - 0

No. of Species - 31

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	2,386	40.9	40.9	183.54	80	0.3	28	150	.
bay anchovy	1,379	23.7	64.6	106.08	41	0.2	23	78	.
Atlantic croaker	828	14.2	78.8	63.69	37	0.6	18	183	.
spot	571	9.8	88.6	43.92	129	0.6	26	222	.
blue crab, male	169	2.9	91.5	13.00	56	3.6	12	177	.
blue crab, juvenile female	135	2.3	93.8	10.38	29	0.7	17	58	.
blackcheek tonguefish	87	1.5	95.3	6.69	125	2.7	49	153	.
channel catfish	53	0.9	96.2	4.08	194	8.4	98	318	.
blue crab, adult female	47	0.8	97.0	3.62	150	1.2	133	172	.
silver perch	24	0.4	97.5	1.85	117	5.3	87	184	.
northern kingfish	19	0.3	97.8	1.46	119	5.7	41	165	.
white catfish	16	0.3	98.1	1.23	136	9.7	84	196	.
black seabass	15	0.3	98.3	1.15	181	4.5	164	230	.
white perch	15	0.3	98.6	1.15	159	4.9	138	194	.
oyster toadfish	14	0.2	98.8	1.08	197	12.1	138	296	.
summer flounder	13	0.2	99.0	1.00	225	19.1	143	401	.
pigfish	13	0.2	99.3	1.00	154	2.0	143	165	.
weakfish	9	0.2	99.4	0.69	192	20.8	115	271	.
butterfish	8	0.1	99.6	0.62	127	12.9	108	216	.
smallmouth flounder	5	0.1	99.6	0.38	98	9.6	77	127	.
northern puffer	4	0.1	99.7	0.31	192	11.7	158	211	.
American eel	4	0.1	99.8	0.31	269	28.6	214	346	.
bluefish	3	0.1	99.8	0.23	242	17.0	210	268	.
striped anchovy	2	0.0	99.9	0.15	99	6.5	92	105	.
naked goby	2	0.0	99.9	0.15	27	2.5	24	29	.
harvestfish	1	0.0	99.9	0.08	91	.	91	91	.
striped bass	1	0.0	99.9	0.08	216	.	216	216	.
Atlantic menhaden	1	0.0	99.9	0.08	125	.	125	125	.
northern pipefish	1	0.0	100.0	0.08	161	.	161	161	.
inshore lizardfish	1	0.0	100.0	0.08	274	.	274	274	.
spotfin mojarra	1	0.0	100.0	0.08	104	.	104	104	.
All Species Combined	5,827								

Table 67.

Month - October

River - Rappahannock

No. of Fish Trawls Made - 12

No. of Add'l Crab Trawls Made - 0

No. of Species - 20

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	2,691	40.0	40.0	224.25	60	0.2	23	92	.
spot	2,054	30.5	70.6	171.17	132	0.3	94	198	.
hogchoker	1,047	15.6	86.1	87.25	98	0.5	31	178	.
Atlantic croaker	514	7.6	93.8	42.83	30	0.2	19	52	.
weakfish	84	1.2	95.0	7.00	248	5.6	67	372	.
oyster toadfish	56	0.8	95.9	4.67	177	9.0	77	412	.
white perch	55	0.8	96.7	4.58	157	2.5	122	226	.
northern kingfish	55	0.8	97.5	4.58	105	3.4	58	180	.
blackcheek tonguefish	40	0.6	98.1	3.33	100	6.1	55	166	.
Atlantic menhaden	27	0.4	98.5	2.25	92	7.0	67	194	.
blue crab, adult female	26	0.4	98.9	2.17	140	3.9	97	172	.
summer flounder	21	0.3	99.2	1.75	234	13.5	192	426	.
blue crab, male	18	0.3	99.5	1.50	91	13.4	19	176	.
alewife	11	0.2	99.6	0.92	69	3.2	58	91	.
blue crab, juvenile female	10	0.1	99.8	0.83	41	9.9	21	102	.
white catfish	8	0.1	99.9	0.67	291	14.9	232	355	.
channel catfish	2	0.0	99.9	0.17	389	1.0	388	390	.
American eel	2	0.0	100.0	0.17	388	33.0	355	421	.
silver perch	2	0.0	100.0	0.17	156	30.5	125	186	.
Atlantic spadefish	1	0.0	100.0	0.08	82	.	82	82	.
All Species Combined	6,724								

Table 68.

Month - October									
River - York									
No. of Fish Trawls Made - 12									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 24									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	4,478	62.8	62.8	373.17	59	0.1	17	90	.
Atlantic croaker	858	12.0	74.9	71.50	33	0.4	12	212	.
hogchoker	760	10.7	85.5	63.33	100	1.2	26	186	.
spot	482	6.8	92.3	40.17	134	0.7	97	194	.
blackcheek tonguefish	117	1.6	93.9	9.75	87	3.7	41	155	.
oyster toadfish	93	1.3	95.2	7.75	225	4.9	55	308	.
weakfish	89	1.2	96.5	7.42	227	6.8	49	318	.
white catfish	83	1.2	97.6	6.92	221	7.9	128	412	.
summer flounder	39	0.5	98.2	3.25	204	4.2	128	271	.
white perch	39	0.5	98.7	3.25	180	7.5	89	346	.
silver perch	33	0.5	99.2	2.75	138	3.2	106	197	.
northern kingfish	13	0.2	99.4	1.08	124	6.4	92	172	.
blue crab, male	13	0.2	99.6	1.08	84	11.9	21	162	.
alewife	6	0.1	99.6	0.50	78	3.5	62	85	.
American eel	5	0.1	99.7	0.42	374	41.1	287	523	.
blue crab, juvenile female	5	0.1	99.8	0.42	44	16.1	17	105	.
Atlantic menhaden	4	0.1	99.8	0.33	138	4.2	132	150	.
harvestfish	2	0.0	99.9	0.17	79	3.0	76	82	.
naked goby	2	0.0	99.9	0.17	32	0.5	31	32	.
blue crab, adult female	2	0.0	99.9	0.17	133	1.0	132	134	.
black seabass	1	0.0	99.9	0.08	196	.	196	196	.
Atlantic spadefish	1	0.0	100.0	0.08	90	.	90	90	.
northern pipefish	1	0.0	100.0	0.08	118	.	118	118	.
conger eel	1	0.0	100.0	0.08	376	.	376	376	.
All Species Combined	7,127								

Table 69.

Month - October									
River - All - Pooled									
No. of Fish Trawls Made - 37									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 35									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	8,548	43.4	43.4	231.03	56	0.1	17	92	.
hogchoker	4,193	21.3	64.7	113.32	88	0.3	26	186	.
spot	3,107	15.8	80.5	83.97	132	0.3	26	222	.
Atlantic croaker	2,200	11.2	91.7	59.46	34	0.3	12	212	.
blackcheek tonguefish	244	1.2	93.0	6.59	103	2.5	41	166	.
blue crab, male	200	1.0	94.0	5.41	61	3.4	12	177	.
weakfish	182	0.9	94.9	4.92	235	4.4	49	372	.
oyster toadfish	163	0.8	95.7	4.41	206	4.6	55	412	.
blue crab, juvenile female	150	0.8	96.5	4.05	31	1.0	17	105	.
white perch	109	0.6	97.0	2.95	166	3.2	89	346	.
white catfish	107	0.5	97.6	2.89	213	7.3	84	412	.
northern kingfish	87	0.4	98.0	2.35	111	2.7	41	180	.
blue crab, adult female	75	0.4	98.4	2.03	146	1.6	97	172	.
summer flounder	73	0.4	98.8	1.97	216	5.8	128	426	.
silver perch	59	0.3	99.1	1.59	130	3.2	87	197	.
channel catfish	55	0.3	99.4	1.49	201	9.5	98	390	.
Atlantic menhaden	32	0.2	99.5	0.86	98	6.6	67	194	.
alewife	17	0.1	99.6	0.46	72	2.6	58	91	.
black seabass	16	0.1	99.7	0.43	182	4.3	164	230	.
pigfish	13	0.1	99.8	0.35	154	2.0	143	165	.
American eel	11	0.1	99.8	0.30	338	26.3	214	523	.
butterfish	8	0.0	99.8	0.22	127	12.9	108	216	.
smallmouth flounder	5	0.0	99.9	0.14	98	9.6	77	127	.
northern puffer	4	0.0	99.9	0.11	192	11.7	158	211	.
naked goby	4	0.0	99.9	0.11	29	1.8	24	32	.
bluefish	3	0.0	99.9	0.08	242	17.0	210	268	.
harvestfish	3	0.0	99.9	0.08	83	4.4	76	91	.
Atlantic spadefish	2	0.0	100.0	0.05	86	4.0	82	90	.
striped anchovy	2	0.0	100.0	0.05	99	6.5	92	105	.
northern pipefish	2	0.0	100.0	0.05	140	21.5	118	161	.
striped bass	1	0.0	100.0	0.03	216	.	216	216	.
green goby	1	0.0	100.0	0.03	.	.	.	.	.
inshore lizardfish	1	0.0	100.0	0.03	274	.	274	274	.
conger eel	1	0.0	100.0	0.03	376	.	376	376	.
spotfin mojarra	1	0.0	100.0	0.03	104	.	104	104	.
All Species Combined	19,679								

Table 70.

Month - November

River - James

No. of Fish Trawls Made - 13

No. of Add'l Crab Trawls Made - 0

No. of Species - 28

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	3,489	70.3	70.3	268.38	72	0.3	25	145	.
bay anchovy	668	13.5	83.8	51.38	51	0.4	23	80	.
Atlantic croaker	257	5.2	88.9	19.77	46	0.7	16	140	.
channel catfish	189	3.8	92.7	14.54	216	3.8	55	362	.
white perch	105	2.1	94.9	8.08	165	2.4	121	236	.
white catfish	64	1.3	96.2	4.92	139	5.8	78	240	.
spot	59	1.2	97.3	4.54	125	1.9	102	164	.
blackcheek tonguefish	30	0.6	97.9	2.31	75	3.7	52	136	.
blue crab, male	28	0.6	98.5	2.15	85	10.9	14	169	.
butterfish	19	0.4	98.9	1.46	117	1.7	108	135	.
blue crab, juvenile female	12	0.2	99.1	0.92	39	8.4	20	127	.
blue crab, adult female	10	0.2	99.3	0.77	147	2.4	133	158	.
summer flounder	5	0.1	99.4	0.38	199	13.3	165	241	.
weakfish	5	0.1	99.5	0.38	208	20.9	131	251	.
bluefish	3	0.1	99.6	0.23	155	26.6	119	207	.
Atlantic menhaden	3	0.1	99.7	0.23	119	6.2	110	131	.
northern kingfish	3	0.1	99.7	0.23	122	4.7	115	131	.
silver perch	3	0.1	99.8	0.23	102	3.2	96	107	.
striped bass	2	0.0	99.8	0.15	358	33.5	324	391	.
alewife	1	0.0	99.8	0.08	99	.	99	99	.
American eel	1	0.0	99.9	0.08	341	.	341	341	.
tessellated darter	1	0.0	99.9	0.08	80	.	80	80	.
marginated madtom	1	0.0	99.9	0.08	184	.	184	184	.
northern pipefish	1	0.0	99.9	0.08	160	.	160	160	.
bluegill	1	0.0	99.9	0.08	43	.	43	43	.
feather blenny	1	0.0	100.0	0.08	79	.	79	79	.
smallmouth flounder	1	0.0	100.0	0.08	96	.	96	96	.
spotfin mojarra	1	0.0	100.0	0.08	97	.	97	97	.
All Species Combined	4,963								

Table 71.

Month - November

River - Rappahannock

No. of Fish Trawls Made - 11

No. of Add'l Crab Trawls Made - 0

No. of Species - 25

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	2,449	35.5	35.5	222.64	93	0.3	25	156	.
Atlantic croaker	1,765	25.6	61.1	160.45	45	0.2	14	90	.
spot	736	10.7	71.8	66.91	112	0.6	85	189	.
blackcheek tonguefish	578	8.4	80.2	52.55	70	0.4	33	157	.
bay anchovy	479	6.9	87.1	43.55	53	0.6	22	89	.
white perch	178	2.6	89.7	16.18	173	2.2	85	242	.
naked goby	159	2.3	92.0	14.45	38	0.5	26	53	.
American eel	143	2.1	94.1	13.00	327	5.5	200	764	.
Atlantic menhaden	122	1.8	95.9	11.09	82	1.0	58	122	.
blue crab, male	53	0.8	96.6	4.82	91	6.5	21	159	.
blue crab, juvenile female	47	0.7	97.3	4.27	40	4.2	15	129	.
weakfish	41	0.6	97.9	3.73	156	6.1	106	312	.
alewife	35	0.5	98.4	3.18	71	1.9	58	105	.
summer flounder	28	0.4	98.8	2.55	219	3.6	190	269	.
northern kingfish	28	0.4	99.2	2.55	110	2.8	80	128	.
oyster toadfish	17	0.2	99.5	1.55	174	18.7	55	298	.
blue crab, adult female	14	0.2	99.7	1.27	136	5.9	105	168	.
windowpane	5	0.1	99.8	0.45	55	3.9	45	69	.
northern pipefish	5	0.1	99.8	0.45	154	16.1	117	200	.
butterfish	3	0.0	99.9	0.27	180	10.5	159	191	.
feather blenny	3	0.0	99.9	0.27	64	9.8	54	84	.
white catfish	2	0.0	100.0	0.18	281	9.5	271	290	.
striped bass	1	0.0	100.0	0.09	252	.	252	252	.
channel catfish	1	0.0	100.0	0.09	366	.	366	366	.
skilletfish	1	0.0	100.0	0.09	62	.	62	62	.
All Species Combined	6,893								

Table 72.

Month - November

River - York

No. of Fish Trawls Made - 12

No. of Add'l Crab Trawls Made - 0

No. of Species - 24

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	3,148	35.1	35.1	262.33	90	0.5	23	219	.
Atlantic croaker	2,884	32.1	67.2	240.33	49	0.3	13	173	.
bay anchovy	1,132	12.6	79.8	94.33	46	0.3	23	79	.
spot	562	6.3	86.0	46.83	114	0.5	91	201	.
white perch	355	4.0	90.0	29.58	172	1.4	116	269	.
blackcheek tonguefish	329	3.7	93.6	27.42	68	1.1	36	150	.
blue crab, male	171	1.9	95.5	14.25	36	2.1	10	155	.
blue crab, juvenile female	125	1.4	96.9	10.42	27	1.0	12	100	.
oyster toadfish	78	0.9	97.8	6.50	201	7.7	58	303	.
summer flounder	52	0.6	98.4	4.33	202	3.4	151	280	.
white catfish	50	0.6	98.9	4.17	214	10.7	115	404	.
American eel	37	0.4	99.4	3.08	312	9.4	208	582	.
northern kingfish	23	0.3	99.6	1.92	129	2.2	101	150	.
weakfish	9	0.1	99.7	0.75	160	14.3	122	255	.
blue crab, adult female	6	0.1	99.8	0.50	140	4.7	124	159	.
butterfish	4	0.0	99.8	0.33	115	5.4	103	126	.
naked goby	4	0.0	99.9	0.33	37	4.9	26	48	.
silver perch	3	0.0	99.9	0.25	98	8.3	82	109	.
skilletfish	2	0.0	99.9	0.17	71	6.0	65	77	.
striped cusk-eel	2	0.0	99.9	0.17	141	13.5	127	154	.
striped mullet	2	0.0	100.0	0.17	157	1.5	155	158	.
striped bass	1	0.0	100.0	0.08	295	.	295	295	.
Atlantic menhaden	1	0.0	100.0	0.08	87	.	87	87	.
feather blenny	1	0.0	100.0	0.08	61	.	61	61	.
All Species Combined	8,981								

Table 73.

Month - November

River - All - Pooled

No. of Fish Trawls Made - 36

No. of Add'l Crab Trawls Made - 0

No. of Species - 34

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	9,086	43.6	43.6	252.39	84	0.2	23	219	.
Atlantic croaker	4,906	23.5	67.1	136.28	47	0.2	13	173	.
bay anchovy	2,279	10.9	78.1	63.31	49	0.2	22	89	.
spot	1,357	6.5	84.6	37.69	114	0.4	85	201	.
blackcheek tonguefish	937	4.5	89.1	26.03	69	0.5	33	157	.
white perch	638	3.1	92.2	17.72	171	1.1	85	269	.
blue crab, male	252	1.2	93.4	7.00	53	2.8	10	169	.
channel catfish	190	0.9	94.3	5.28	217	3.9	55	366	.
blue crab, juvenile female	184	0.9	95.2	5.11	31	1.4	12	129	.
American eel	181	0.9	96.0	5.03	324	4.8	200	764	.
naked goby	163	0.8	96.8	4.53	38	0.5	26	53	.
Atlantic menhaden	126	0.6	97.4	3.50	83	1.1	58	131	.
white catfish	116	0.6	98.0	3.22	174	6.7	78	404	.
oyster toadfish	95	0.5	98.4	2.64	196	7.2	55	303	.
summer flounder	85	0.4	98.8	2.36	208	2.6	151	280	.
weakfish	55	0.3	99.1	1.53	161	5.7	106	312	.
northern kingfish	54	0.3	99.4	1.50	119	2.1	80	150	.
alewife	36	0.2	99.5	1.00	72	2.0	58	105	.
blue crab, adult female	30	0.1	99.7	0.83	141	3.1	105	168	.
butterfish	26	0.1	99.8	0.72	124	4.4	103	191	.
northern pipefish	6	0.0	99.8	0.17	155	13.2	117	200	.
silver perch	6	0.0	99.9	0.17	100	4.1	82	109	.
windowpane	5	0.0	99.9	0.14	55	3.9	45	69	.
feather blenny	5	0.0	99.9	0.14	67	6.2	54	84	.
striped bass	4	0.0	99.9	0.11	316	29.2	252	391	.
bluefish	3	0.0	99.9	0.08	155	26.6	119	207	.
skilletfish	3	0.0	100.0	0.08	68	4.6	62	77	.
striped cusk-eel	2	0.0	100.0	0.06	141	13.5	127	154	.
striped mullet	2	0.0	100.0	0.06	157	1.5	155	158	.
tessellated darter	1	0.0	100.0	0.03	80	.	80	80	.
marginated madtom	1	0.0	100.0	0.03	184	.	184	184	.
bluegill	1	0.0	100.0	0.03	43	.	43	43	.
smallmouth flounder	1	0.0	100.0	0.03	96	.	96	96	.
spotfin mojarra	1	0.0	100.0	0.03	97	.	97	97	.
All Species Combined	20,837								

Table 74.

Month - December									
River - James									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 25									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
hogchoker	3,795	40.2	40.2	474.38	51	0.3	23	138	.
bay anchovy	3,566	37.7	77.9	445.75	44	0.1	24	77	.
blueback herring	761	8.1	86.0	95.13	70	0.2	45	90	.
spot	659	7.0	92.9	82.38	115	0.4	29	161	.
Atlantic croaker	484	5.1	98.1	60.50	46	0.4	16	85	.
white perch	65	0.7	98.8	8.13	139	4.1	63	202	.
Atlantic silverside	39	0.4	99.2	4.88	91	1.7	65	114	.
Atlantic menhaden	13	0.1	99.3	1.63	113	9.6	90	225	.
blue crab, male	9	0.1	99.4	1.13	57	15.7	14	124	.
white catfish	7	0.1	99.5	0.88	247	25.8	191	375	.
channel catfish	7	0.1	99.5	0.88	272	21.6	189	370	.
gizzard shad	7	0.1	99.6	0.88	127	2.7	118	139	.
blackcheek tonguefish	7	0.1	99.7	0.88	73	10.1	60	133	.
blue crab, juvenile female	6	0.1	99.8	0.75	22	3.5	14	38	.
spotted hake	5	0.1	99.8	0.63	89	1.8	83	94	.
striped bass	4	0.0	99.9	0.50	216	44.3	133	312	.
blue crab, adult female	4	0.0	99.9	0.50	156	3.7	147	165	.
butterfish	2	0.0	99.9	0.25	140	24.5	115	164	.
American shad	2	0.0	99.9	0.25	89	2.5	86	91	.
summer flounder	1	0.0	99.9	0.13	197	.	197	197	.
weakfish	1	0.0	100.0	0.13	202	.	202	202	.
northern pipefish	1	0.0	100.0	0.13	182	.	182	182	.
feather blenny	1	0.0	100.0	0.13	72	.	72	72	.
oyster toadfish	1	0.0	100.0	0.13	45	.	45	45	.
silver perch	1	0.0	100.0	0.13	58	.	58	58	.
All Species Combined	9,448								

Table 75.

Month - December									
River - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 22									
Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
Atlantic croaker	2,274	46.9	46.9	324.86	45	0.2	15	78	.
bay anchovy	860	17.7	64.6	122.86	38	0.3	24	74	.
Atlantic menhaden	734	15.1	79.7	104.86	86	0.5	64	202	.
white perch	469	9.7	89.4	67.00	154	1.8	68	297	.
alewife	244	5.0	94.4	34.86	73	0.5	58	111	.
blueback herring	145	3.0	97.4	20.71	62	0.2	54	73	.
spot	59	1.2	98.6	8.43	104	1.4	88	149	.
hogchoker	19	0.4	99.0	2.71	50	5.7	22	99	.
white catfish	9	0.2	99.2	1.29	254	11.5	200	328	.
Atlantic silverside	8	0.2	99.4	1.14	99	2.4	85	106	.
American shad	6	0.1	99.5	0.86	111	5.0	101	134	.
gizzard shad	5	0.1	99.6	0.71	171	24.5	125	265	.
northern kingfish	4	0.1	99.7	0.57	98	9.7	81	122	.
summer flounder	3	0.1	99.7	0.43	239	14.3	211	259	.
skilletfish	3	0.1	99.8	0.43	39	4.4	31	46	.
weakfish	2	0.0	99.8	0.29	113	18.0	95	131	.
oyster toadfish	2	0.0	99.9	0.29	112	18.5	93	130	.
blue crab, adult female	2	0.0	99.9	0.29	153	2.0	151	155	.
butterfish	1	0.0	99.9	0.14	127	.	127	127	.
striped mullet	1	0.0	100.0	0.14	162	.	162	162	.
blue crab, male	1	0.0	100.0	0.14	26	.	26	26	.
blue crab, juvenile female	1	0.0	100.0	0.14	28	.	28	28	.
All Species Combined	4,852								

Table 76.

Month - December

River - York

No. of Fish Trawls Made - 8

No. of Add'l Crab Trawls Made - 0

No. of Species - 26

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
Atlantic croaker	1,144	44.4	44.4	143.00	45	0.4	13	126	.
bay anchovy	304	11.8	56.2	38.00	42	0.5	25	81	.
white perch	276	10.7	66.9	34.50	166	1.9	63	220	.
spot	276	10.7	77.6	34.50	111	0.5	92	154	.
blackcheek tonguefish	216	8.4	86.0	27.00	65	1.0	45	149	.
white catfish	104	4.0	90.0	13.00	219	7.9	86	415	.
hogchoker	104	4.0	94.0	13.00	74	2.9	30	148	.
blue crab, male	41	1.6	95.6	5.13	33	4.9	14	165	.
blue crab, juvenile female	25	1.0	96.6	3.13	27	3.7	15	111	.
spotted hake	24	0.9	97.5	3.00	93	2.2	74	109	.
Atlantic menhaden	11	0.4	97.9	1.38	88	4.0	74	110	.
summer flounder	10	0.4	98.3	1.25	231	17.0	173	341	.
weakfish	7	0.3	98.6	0.88	119	7.1	105	155	.
spotted seatrout	6	0.2	98.8	0.75	132	3.5	122	146	.
American eel	6	0.2	99.1	0.75	231	6.0	218	257	.
silver perch	6	0.2	99.3	0.75	79	5.9	67	106	.
American shad	5	0.2	99.5	0.63	92	5.1	84	112	.
skilletfish	3	0.1	99.6	0.38	45	11.1	23	60	.
oyster toadfish	3	0.1	99.7	0.38	102	51.4	46	205	.
striped bass	1	0.0	99.8	0.13	134	.	134	134	.
northern kingfish	1	0.0	99.8	0.13	113	.	113	113	.
northern pipefish	1	0.0	99.8	0.13	143	.	143	143	.
naked goby	1	0.0	99.9	0.13	47	.	47	47	.
feather blenny	1	0.0	99.9	0.13	76	.	76	76	.
Atlantic silverside	1	0.0	100.0	0.13	90	.	90	90	.
northern stargazer	1	0.0	100.0	0.13	51	.	51	51	.
All Species Combined	2,578								

Table 77.

Month - December

River - All - Pooled

No. of Fish Trawls Made - 23

No. of Add'l Crab Trawls Made - 0

No. of Species - 33

Species	Number of Fish	Percent Within River	Cumulative Percent	Catch Per Trawl	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)	Average Weight (g)
bay anchovy	4,730	28.0	28.0	205.65	43	0.1	24	81	.
hogchoker	3,918	23.2	51.2	170.35	52	0.3	22	148	.
Atlantic croaker	3,902	23.1	74.4	169.65	45	0.2	13	126	.
spot	994	5.9	80.2	43.22	113	0.3	29	161	.
blueback herring	906	5.4	85.6	39.39	69	0.2	45	90	.
white perch	810	4.8	90.4	35.22	157	1.3	63	297	.
Atlantic menhaden	758	4.5	94.9	32.96	86	0.5	64	225	.
alewife	244	1.4	96.4	10.61	73	0.5	58	111	.
blackcheek tonguefish	223	1.3	97.7	9.70	65	1.0	45	149	.
white catfish	120	0.7	98.4	5.22	223	7.1	86	415	.
blue crab, male	51	0.3	98.7	2.22	37	4.9	14	165	.
Atlantic silverside	48	0.3	99.0	2.09	92	1.5	65	114	.
blue crab, juvenile female	32	0.2	99.2	1.39	26	3.0	14	111	.
spotted hake	29	0.2	99.3	1.26	92	1.8	74	109	.
summer flounder	14	0.1	99.4	0.61	230	12.5	173	341	.
American shad	13	0.1	99.5	0.57	100	4.1	84	134	.
gizzard shad	12	0.1	99.6	0.52	146	11.7	118	265	.
weakfish	10	0.1	99.6	0.43	126	10.1	95	202	.
channel catfish	7	0.0	99.7	0.30	272	21.6	189	370	.
silver perch	7	0.0	99.7	0.30	76	5.8	58	106	.
spotted seatrout	6	0.0	99.7	0.26	132	3.5	122	146	.
American eel	6	0.0	99.8	0.26	231	6.0	218	257	.
skilletfish	6	0.0	99.8	0.26	42	5.5	23	60	.
oyster toadfish	6	0.0	99.8	0.26	96	25.7	45	205	.
blue crab, adult female	6	0.0	99.9	0.26	155	2.5	147	165	.
striped bass	5	0.0	99.9	0.22	200	38.0	133	312	.
northern kingfish	5	0.0	99.9	0.22	101	8.1	81	122	.
butterfish	3	0.0	100.0	0.13	135	14.7	115	164	.
northern pipefish	2	0.0	100.0	0.09	163	19.5	143	182	.
feather blenny	2	0.0	100.0	0.09	74	2.0	72	76	.
naked goby	1	0.0	100.0	0.04	47	.	47	47	.
northern stargazer	1	0.0	100.0	0.04	51	.	51	51	.
striped mullet	1	0.0	100.0	0.04	162	.	162	162	.
All Species Combined	16,878								

APPENDIX A

Sample Data Sheet

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860703

Cruise # 0021

Collection # C86 226

StaDate: 86 07 24
year month dayStation, hydro, atmos, equip, buckets record
VIMS Trawl Survey

Station Data:

(Tow #)	Station#	River	RiverMile	Lat_beg	Long_beg	SetDepth	Tide	Secchi	Towdir1	Towdir2	Time_beg (EST)	Time_end
002	J.A.	040	37.134	76.489	30	6				1	0821	0826
Lat_end	Long_end	Compass	Eng_rpm	Gear	Vspeed	Vsp_inst	Vsp_comp	StatID	Stratum	TowDuration	TowDistance	
				70							050	

Hydro Data:

	WaterDepth	Time (EST)	PCodeTemp	TempDegC	ParCodeSal	Salinity	Bot#Sal	ParCodeDO	D.O.	Bot#DO
Surface:				28.8		70	34			68.4
Bottom:				28.9		75	83			68.3
Other:										

Atmos Data:

Time (EST)	ParAirTemp	AirTempDegC	ParCodeWind	WindSpeed	WindDir	ParWeather	Weather	ParCodeSea	Seastate
				10	23		00	VI	1

Equipment:

Trawl Cable Size	EquipType	EquipSerial#
037		
TagLine#		A81
Tridle#		A83
TicklerCh#		A82
Net #		A01
Other Equip:	DOOR	A01
Other Equip:		
Other Equip:		
Other Equip:		

Buckets:

Bucket #s

133
56

Other Species:

Other Species	Comments

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APPENDIX B

Common and Scientific Names of Species Caught During 1986

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Species Names - Common Name Order		Species Names - Latin Name Order	
Common Name	Latin Name	Latin Name	Common Name
American eel	Anguilla rostrata	Alosa aestivalis	blueback herring
American shad	Alosa sapidissima	Alosa pseudoharengus	alewife
Atlantic croaker	Micropogonias undulatus	Alosa sapidissima	American shad
Atlantic menhaden	Brevoortia tyrannus	Anchoa hepsetus	striped anchovy
Atlantic silverside	Menidia menidia	Anchoa mitchilli	bay anchovy
Atlantic spadefish	Chaetodipterus faber	Anguilla rostrata	American eel
Atlantic stingray	Dasyatis sabina	Astroscopus guttatus	northern stargazer
alewife	Alosa pseudoharengus	Bairdiella chrysoura	silver perch
bay anchovy	Anchoa mitchilli	Brevoortia tyrannus	Atlantic menhaden
black seabass	Centropristis striata	Callinectes sapidus, ad fem	blue crab, adult female
blackcheek tonguefish	Symphurus plagiatus	Callinectes sapidus, juv fem	blue crab, juvenile female
blue catfish	Ictalurus furcatus	Callinectes sapidus, male	blue crab, male
blue crab, adult female	Callinectes sapidus, ad fem	Centropristis striata	black seabass
blue crab, juvenile female	Callinectes sapidus, juv fem	Chaetodipterus faber	Atlantic spadefish
blue crab, male	Callinectes sapidus, male	Conger oceanicus	conger eel
blueback herring	Alosa aestivalis	Cynoscion nebulosus	spotted seatrout
bluefish	Pomatomus saltatrix	Cynoscion regalis	weakfish
bluegill	Lepomis macrochirus	Cyprinus carpio	common carp
brown bullhead	Ictalurus nebulosus	Dasyatis sabina	Atlantic stingray
butterfish	Peprilus triacanthus	Dorosoma cepedianum	gizzard shad
channel catfish	Ictalurus punctatus	Etheostoma olmstedii	tessellated darter
cobia	Rachycentron canadum	Etropus microstomus	smallmouth flounder
common carp	Cyprinus carpio	Eucinostomus argenteus	spotfin mojarra
conger eel	Conger oceanicus	Gobiosoma boscii	naked goby
feather blenny	Hypsoblennius hentzi	Hippocampus erectus	lined seahorse
gizzard shad	Dorosoma cepedianum	Hypsoblennius hentzi	feather blenny
harvestfish	Peprilus alepidotus	Ictalurus catus	white catfish
hogchoker	Trinectes maculatus	Ictalurus furcatus	blue catfish
inshore lizardfish	Synodus foetens	Ictalurus nebulosus	brown bullhead
least brook lamprey	Lampetra aepyptera	Ictalurus punctatus	channel catfish
lined seahorse	Hippocampus erectus	Lampetra aepyptera	least brook lamprey
longnose gar	Lepisosteus osseus	Leiostomus xanthurus	spot
marginated madtom	Noturus insignis	Lepisosteus osseus	longnose gar
naked goby	Gobiosoma boscii		

Species Names - Common Name Order		Species Names - Latin Name Order	
Common Name	Latin Name	Latin Name	Common Name
northern kingfish	Menticirrhus saxatilis	Lepomis macrochirus	bluegill
northern pipefish	Syngnathus fuscus	Menidia menidia	Atlantic silverside
northern puffer	Sphoeroides maculatus	Menticirrhus americanus	southern kingfish
northern searobin	Prionotus carolinus	Menticirrhus saxatilis	northern kingfish
northern stargazer	Astroscopus guttatus	Merluccius bilinearis	silver hake
oyster toadfish	Opsanus tau	Micropogonias undulatus	Atlantic croaker
pigfish	Orthopristis chrysoptera	Morone americana	white perch
pipefish	Syngnathus spp.	Morone saxatilis	striped bass
sea lamprey	Petromyzon marinus	Mugil cephalus	striped mullet
silver hake	Merluccius bilinearis	Noturus insignis	marginated madtom
silver perch	Bairdiella chrysoura	Ophidion marginatum	striped cusk-eel
skilletfish	Gobiesox strumosus	Opsanus tau	oyster toadfish
smallmouth flounder	Etropus microstomus	Orthopristis chrysoptera	pigfish
southern kingfish	Menticirrhus americanus	Paralichthys dentatus	summer flounder
spot	Leiostomus xanthurus	Peprilus alepidotus	harvestfish
spotfin mojarra	Eucinostomus argenteus	Peprilus triacanthus	butterfish
spotted hake	Urophycis regia	Petromyzon marinus	sea lamprey
spotted seatrout	Cynoscion nebulosus	Pomatomus saltatrix	bluefish
striped anchovy	Anchoa hepsetus	Prionotus carolinus	northern searobin
striped bass	Morone saxatilis	Prionotus evolans	striped searobin
striped cusk-eel	Ophidion marginatum	Rachycentron canadum	cobia
striped mullet	Mugil cephalus	Scophthalmus aquosus	windowpane
striped searobin	Prionotus evolans	Sphoeroides maculatus	northern puffer
summer flounder	Paralichthys dentatus	Symphurus plagiosa	blackcheek tonguefish
tessellated darter	Etheostoma olmstedii	Syngnathus fuscus	northern pipefish
weakfish	Cynoscion regalis	Syngnathus spp.	pipefish
white catfish	Ictalurus catus	Synodus foetens	inshore lizardfish
white perch	Morone americana	Trinectes maculatus	hogchoker
windowpane	Scophthalmus aquosus	Urophycis regia	spotted hake

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